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# Enforcement Actions: Significant Actions Resolved

Quarterly Progress Report  
July-September 1989

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U.S. Nuclear Regulatory Commission

Office of Enforcement



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Manuscript Completed: December 1989  
Date Published: December 1989

Office of Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555



## ABSTRACT

This compilation summarizes significant enforcement actions that have been resolved during one quarterly period (July - September 1989) and includes copies of letters, Notices, and Orders sent by the Nuclear Regulatory Commission to licensees with respect to these enforcement actions. It is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by the NRC, so that actions can be taken to improve safety by avoiding future violations similar to those described in this publication.



## CONTENTS

	<u>Page</u>
ABSTRACT.....	iii
INTRODUCTION.....	1
SUMMARIES.....	3
I. REACTOR LICENSEES	
A. Civil Penalties and Orders	
Baltimore Gas and Electric Company, Baltimore, Maryland (Calvert Cliffs Nuclear Power Plant, Units 1 and 2) EA 89-107.....	I.A-1
Boston Edison Company, Plymouth, Massachusetts (Pilgrim Nuclear Power Station) EA 89-95.....	I.A-9
Carolina Power & Light Company, Raleigh, North Carolina (Brunswick Steam Electric Plant) EA 87-165.....	I.A-16
The Cleveland Electric Illuminating Company, Perry, Ohio (Perry Nuclear Power Plant, Unit 1) EA 89-91.....	I.A-38
Defense Nuclear Agency, Bethesda, Maryland EA 88-289.....	I.A-44
Duke Power Company, Charlotte, North Carolina (Catawba Nuclear Station) EA 89-46.....	I.A-62
GPU Nuclear Corporation, Forked River, New Jersey (Oyster Creek Nuclear Generating Station) EA 88-203.....	I.A-78
Illinois Power Company, Clinton, Illinois (Clinton Power Station) EA 89-59.....	I.A-86
New York Power Authority, White Plains, New York (Indian Point 3 Nuclear Power Plant) EA 89-75.....	I.A-92
Pacific Gas and Electric Company, San Francisco, California (Diablo Canyon Units 1 and 2) EA 89-85.....	I.A-96
Philadelphia Electric Company, Philadelphia, Pennsylvania (Limerick Nuclear Generating Station) EA 89-126.....	I.A-104

## CONTENTS (Continued)

REACTOR LICENSEES (Continued)	<u>Page</u>
South Carolina Electric & Gas Company, Jenkinsville, South Carolina (V.C. Summer) EA 89-143.....	J.A-111
Tennessee Valley Authority, Chattanooga, Tennessee (Sequoyah Nuclear Plant) EA 88-307.....	I.A-116
 B. Severity Level III Violation, No Civil Penalty	
Duke Power Company, Charlotte, North Carolina (Catawba, Unit 2) EA 89-138.....	I.B-1
Gulf States Utilities, St. Francisville, Louisiana (River Bend Station) EA 89-122.....	I.B-6
Niagara Mohawk Power Corporation, Syracuse, New York (Nine Mile Point, Unit 1) EA 89-70.....	I.B-11
Philadelphia Electric Company, Philadelphia, Pennsylvania (Limerick Generation Station, Unit 1) EA 89-145.....	I.B-21
Virginia Electric and Power Company, Glen Allen, Virginia (North Anna, Units 1 and 2) EA 89-103.....	I.B-26
 II. MATERIALS LICENSEES	
A. Civil Penalties and Orders	
A-1 Inspection, Inc., Evanston, Wyoming EA 87-41.....	II.A-1
Bucks Diagnostic Center, Levittown, Pennsylvania EA 89-113.....	II.A-9
Christian E. Chinwuba, Washington, D.C. EA 89-27.....	II.A-16
Ellis Fischel State Cancer Center, Columbia, Missouri EA 89-92.....	II.A-30



CONTENTS (Continued)

MATERIALS LICENSEES (Continued)

General Electric Company, Cleveland, Ohio EA 89-127.....	II.A-38
Grand Haven Board of Light and Power, Grand Haven, Michigan EA 89-60.....	II.A-47
Isonedix, Inc., Whippany, New Jersey EA 89-19.....	II.A-58
Lee County Community Hospital, Pennington Gap, Virginia EA 89-44.....	II.A-76
Professional Service Industries, Inc., Lombard, Illinois EA 88-313.....	II.A-88
Rappahannock General Hospital, Kilmarnock, Virginia EA 88-287.....	II.A-101
St. Joseph's Hospital, St. Paul, Minnesota EA 89-140.....	II.A-112
Texas Nuclear Corporation, Austin, Texas EA 89-93.....	II.A-120
The University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma EA 89-128.....	II.A-129
B. Severity Level III Violation, No Civil Penalty	
Bridgeport Hospital, Bridgeport, Connecticut EA 89-137.....	II.B-1
Cargill, Incorporated, Dayton, Ohio EA 89-168.....	II.B-8
New England Medical Center Hospitals, Boston, Massachusetts EA 89-133.....	II.B-12

## ENFORCEMENT ACTIONS: SIGNIFICANT ACTIONS RESOLVED

July - September 1989

### INTRODUCTION

This issue of NUREG-0940 is being published to inform NRC licensees about significant enforcement actions and their resolution for the third quarter of 1989. Enforcement actions are issued by the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support and the Regional Administrator. The Director, Office of Enforcement, may act for the DEES in the absence of the DEES or as directed. The actions involved in this NUREG involve NRC's civil penalties as well as significant Notices of Violation.

An objective of the NRC Enforcement Program is to encourage licensees to improve their performance and, by example, the performance of the licensed industry. Therefore, it is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by NRC, so all can learn from the errors of others, thus improving performance in the nuclear industry and promoting the public health and safety as well as the common defense and security.

A brief summary of each significant enforcement action that has been resolved in the third quarter of 1989 can be found in the section of this report entitled "Summaries." Each summary provides the enforcement action (EA) number to identify the case for reference purposes. The supplement number refers to the activity area in which the violations are classified according to guidance furnished in the U.S. Nuclear Regulatory Commission's "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988). Violations are categorized in terms of five levels of severity to show their relative importance within each of the following activity areas:

- Supplement I - Reactor Operations
- Supplement II - Facility Construction
- Supplement III - Safeguards
- Supplement IV - Health Physics
- Supplement V - Transportation
- Supplement VI - Fuel Cycle and Materials Operations
- Supplement VII - Miscellaneous Matters
- Supplement VIII - Emergency Preparedness

Part I.A of this report consists of copies of completed civil penalty or Order actions involving reactor licensees, arranged alphabetically. Part I.B includes copies of Notices of Violation that were issued to reactor licensees for a Severity Level III violation, but for which no civil penalties were assessed. Part II.A contains civil penalty or Order actions involving materials licensees. Part II.B includes copies of Notices of Violation that has been issued to material licensees, but for which no civil penalties were assessed.

Actions still pending on September 30, 1989 will be included in future issues of this publication when they have been resolved.



## SUMMARIES

### I. REACTOR LICENSEES

#### A. Civil Penalties and Orders

Baltimore Gas and Electric Company, Lusby, Maryland  
(Calvert Cliffs Nuclear Power Plant) Supplement I, EA 89-107

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$75,000 was issued on July 12, 1989 to emphasize the the lack of sufficient control of operations and adequate coordination and communication among and between departments. The action was based on two violations indicating a lack of proper management oversight and control. The first violation involved two failures to meet the requirements of Technical Specification 3.9.4.c in which core alterations took place without having the proper level of containment integrity. The second violation involved a number of examples of the licensee's failure to perform proper safety evaluations prior to making temporary plant modifications. The base civil penalty was escalated 50% based on the licensee's poor past performance. The licensee responded and paid the civil penalty on August 10, 1989.

Boston Edison Company, Plymouth, Massachusetts  
(Pilgrim Nuclear Power Station) Supplement I, EA 89-95

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$25,000 was issued August 23, 1989 to emphasize the need for management to assure that all personnel understand and carry out the station equipment tagout requirements. The action was based on the overpressurization of the Reactor Core Isolation Cooling system due to the failure of personnel to carry out the station equipment tagout requirement. The civil penalty was mitigated by 50% because the licensee's corrective actions were prompt and extensive. The licensee responded and paid the civil penalty on September 22, 1989.

Carolina Power and Light Company, Raleigh, North Carolina  
(Brunswick Steam Electric Plant) Supplement I, EA 87-165

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$50,000 was issued May 5, 1988 to emphasize the importance of environmental qualification of electrical equipment important to safety. The action was based on violations of equipment qualification requirements of 10 CFR 50.49. The licensee responded on July 1, 1988. After consideration of the licensee's response, an Order Imposing Civil Monetary Penalty was issued June 26, 1989. The licensee paid the civil penalty on July 26, 1989.

Cleveland Electric Illuminating Company, Perry, Ohio  
(Perry Nuclear Power Plant, Unit 1) Supplement I, EA 89-91

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$37,500 was issued July 11, 1989 to emphasize the need to take thorough corrective actions as well as to emphasize the need to properly communicate the extent of those actions to the NRC. The action was based on a violation for the licensee's failure to take proper corrective actions in response to a previous civil penalty for violations of the environmental qualification requirements of 10 CFR 50.49. The base civil penalty was mitigated by 25% because of the licensee's extensive actions to correct not only the identified problems but the corrective action program as well. The licensee responded and paid the civil penalty on August 10, 1989.

Defense Nuclear Agency, Bethesda, Maryland  
(Armed Forces Radiobiology Research Institute) Supplements I and VII  
EA 88-289

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$2,500 was issued March 22, 1989 to emphasize the need for increased and improved management attention to facility operations to ensure that (1) deficiencies, when they exist, are promptly identified and corrected, and (2) individuals who identify these concerns feel free to raise them to management without fear of reprisal. The action was based on a number of violations that include (1) failure to perform written safety evaluations, (2) procedure adherence problems, (3) failure to ensure all operators satisfactorily completed the requalification training program, and (4) discrimination, in violation of 10 CFR 50.7, against an employee who raised safety concerns. The licensee responded in letters dated May 4, 1989 and June 29, 1989. After consideration of the response, an Order Imposing a Civil Penalty was issued August 22, 1989. The licensee paid the civil penalty on September 18, 1989.

Duke Power Company, Charlotte, North Carolina  
(Catawba Nuclear Station) Supplement I, EA 89-46

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$75,000 was issued May 19, 1989 to emphasize the need for adequate post-modification testing and prompt reporting of inoperable safety systems. The action was based on violations involving an inoperable Unit 2 containment air return and hydrogen skimmer system train caused by a design modification wiring error and the licensee's failure to report a condition prohibited by plant technical specifications. The base civil penalty was escalated by 50% for the first violation because the licensee's initial corrective actions were narrowly focused on correcting the improperly installed electrical wiring and failed to address the broader problem of inadequate post modification testing. The licensee responded on June 16, 1989. After consideration of the licensee's response, an Order Imposing Civil Monetary Penalty was issued August 31, 1989. The licensee paid the civil penalty on September 28, 1989.



GPU Nuclear Corporation, Forked River, New Jersey  
(Cyster Creek Nuclear Generating Station) Supplement I, EA 88-203

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$50,000 was issued June 2, 1989 to emphasize the need to give attention to the EQ program as evidenced by the inadequate consideration of vendor installation information and inadequate quality control of these activities. The action was based on a violation of the equipment qualification requirements of 10 CFR 50.49. The licensee responded and paid the civil penalty on June 30, 1989.

Illinois Power Company, Clinton, Illinois  
(Clinton Power Station) Supplement I, EA 89-59

A Notice of Violation and Proposed Imposition of Civil Penalties in the amount of \$75,000 was issued July 20, 1989 to emphasize the importance of adequate planning, procedures, involvement of qualified personnel, and engineering control. The action was based on two violations, the failure to take adequate corrective actions for environmental qualification deficiencies for which an earlier civil penalty was assessed and the failure to identify additional environmental qualification deficiencies. The base civil penalty for the first violation was mitigated by 50% for the licensee's identification of the deficiencies and corrective actions for the corrective action problem. The licensee responded and paid the civil penalties on August 8, 1989.

New York Power Authority, White Plains, New York  
(Indian Point 3 Nuclear Power Plant) Supplement III, EA 89-75

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$25,000 was issued June 12, 1989 to emphasize the need for promptly increasing, improving, and implementing more effective management oversight and attention to the program to assure that security personnel, as well as other individuals authorized access to the plant, understand and adhere to security program requirements. The action was based on the actual entry into the protected area of an individual who had been terminated for cause three days earlier. The base civil penalty was mitigated by 50% because of prior good performance in the area of security. The licensee responded and paid the civil penalty on July 12, 1989.

Pacific Gas and Electric Company, San Francisco, California  
(Diablo Canyon Units 1 and 2) Supplement I, EA 89-85

A Notice of Violation and Proposed Imposition of Civil Penalties in the amount of \$75,000 was issued July 5, 1989 to emphasize (1) the need to successfully implement and maintain plant design bases, (2) the importance of thorough and technically sound engineering work, and (3) the need for comprehensive and timely corrective action for identified problems. The action was based on violations in two areas of concern. In the first, violations which involved engineering and design control were identified that resulted in having less than the required number of steam supply paths available

for the turbine driven auxiliary feedwater pumps. In the second, the licensee failed to take corrective actions for identified conditions adverse to quality. The base civil penalty was mitigated by 50% for the first violation because of the licensee's corrective actions. The licensee responded and paid the civil penalty on August 4, 1989.

Philadelphia Electric Company, Philadelphia, Pennsylvania  
(Limerick Nuclear Generating Station) Supplement VIII, EA 89-126

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$75,000 was issued August 10, 1989 to emphasize the importance of maintaining increased and improved management oversight and control of the emergency preparedness program at both the corporate and site levels. The action was based on the inability of the operations staff to effectively utilize the emergency action level event classification guides to properly escalate emergency classifications and make appropriate protective action recommendations and the failure to promptly correct deficiencies in the emergency preparedness program which were identified during previous nuclear quality assurance audits. The base civil penalty was increased by 50% because of NRC-identification of the violations, and prior notice of the violation involving failure to correct identified deficiencies. The licensee responded and paid the civil penalty on September 11, 1989.

South Carolina Electric and Gas Company, Jenkinsville, South Carolina  
(V. C. Summer) Supplement I, EA 89-143

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$25,000 was issued August 31, 1989 to emphasize the need for adequate controls to assure that properly qualified licensed persons are present at the controls at all times during the operation of the facility. The action was based on inadequate management controls that allowed a licensed senior reactor operator, who failed a portion of his annual requalification exam, to assume the duties of the operator-at-the-controls prior to retraining and retesting. The base civil penalty was mitigated 50% because the event was promptly identified and reported by the licensee. The licensee responded and paid the civil penalty on September 29, 1989.

Tennessee Valley Authority, Chattanooga, Tennessee  
(Sequoyah Nuclear Plant) Supplement I, EA 88-307

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$50,000 was issued February 23, 1989 to emphasize the need to identify and correct operational deficiencies that could lead to plant operation in an unanalyzed manner. The action was based on inadequate identification and correction of conditions adverse to quality. Specifically, the licensee's post-trip review process failed to identify that the RCS temperature was not being adequately controlled following a reactor trip to ensure that the shutdown margin was maintained. The licensee responded on March 24, 1989. After considering the licensee's response, an Order Imposing Civil Monetary Penalty was issued August 1, 1989. The licensee paid the civil penalty on August 17, 1989.

B. Severity Level III Violation, No Civil Penalty

Duke Power Company, Charlotte, North Carolina  
(Catawba, Unit 2) Supplement I, EA 89-138

A Notice of Violation was issued August 31, 1989 based on a violation involving the inoperability of the reactor vessel level instrumentation system on Unit 2. A civil penalty was not proposed because of the licensee's initiative in identifying the violation through a monthly RVLIS system walkdown, promptly reporting the event to the NRC, and taking comprehensive corrective actions.

Gulf States Utilities, St. Francisville, Louisiana  
(River Bend Station) Supplement I, EA 89-122

A Notice of Violation was issued July 21, 1989 based on a violation involving the failure to establish a test program which would have assured the operability of the safety-related ventilation systems associated with the fuel building and the main control room. A civil penalty was not proposed because the violations were identified by a self-initiated SSFI and were promptly corrected.

Niagara Mohawk Power Corporation, Syracuse, New York  
(Nine Mile Point, Unit 1) Supplement I, EA 89-70

A Notice of Violation was issued September 22, 1989 based on violations relative to identified deficiencies in the conduct and documentation of requalification training for licensed operators. A civil penalty was not proposed due to the exercise of enforcement discretion. This takes into account that the plant had been shut down for an extended period of time due to generally poor performance brought about by problems with the licensee's ability to self-identify and correct deficient conditions. By way of CALs the licensee agreed to develop and implement extensive comprehensive changes which included management changes and specific actions in a restart action plan.

Philadelphia Electric Company, Philadelphia, Pennsylvania  
(Limerick Nuclear Generating Station, Unit 1) Supplement V, EA 89-145

A Notice of Violation was issued August 9, 1989 based on a violation which occurred when a SeaVan was shipped by the licensee and upon receipt at the recycle center excessive radiation levels were discovered on the external bottom of the trailer used to transport the SeaVan. A civil penalty was not proposed because of the licensee's good past performance in transportation.

Virginia Electric and Power Company, Glen Allen, Virginia  
(North Anna Units 1 and 2) Supplement I, EA 89-103

A Notice of Violation was issued July 5, 1989 based on a violation involving the operability of the containment recirculation spray system. A civil penalty was not proposed because of the identification of the problem by the licensee and extensive corrective actions.



## II. MATERIALS LICENSEES

### A. Civil Penalties and Orders

A-1 Inspection, Inc., Evanston, Wyoming  
EA 87-41

An Order Temporarily Suspending License (Effective Immediately) and Order to Show Cause was issued April 10, 1987. The Order was based on the President of the licensee hiring an individual to conduct radiography without assuring that the individual was qualified and without adding the individual to the license. The licensee responded to the Order in a letter dated April 27, 1987 but the NRC deferred consideration until an investigation was completed. The license expired on May 31, 1989 and a letter terminating the license was issued July 10, 1989.

Bucks Diagnostic Center, Levittown, Pennsylvania  
Supplements IV and VI, EA 89-113

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$500 was issued on July 19, 1989 to emphasize the importance of initial training and periodic retraining of personnel and maintaining management attention and oversight of the radiation safety program to ensure that activities are conducted safely and in accordance with the terms of the license. The action was based on violations involving failure to: adequately perform, evaluate, and maintain records of, certain instrument calibration checks; perform certain required surveys of packages containing radioactive material and areas where radioactive material is used; check survey meters with a with a check source each day of use; perform required inventories of sealed sources; and provide adequate training to individuals performing licensed activities. The licensee responded and paid the civil penalty on July 31, 1989.

Christian E. Chinwuba, M.D., Washington, DC  
Supplements IV and VI, EA 89-27

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$250 was issued April 5, 1989 to emphasize the need for maintaining increased and improved management attention and oversight of the radiation safety program to ensure that activities are conducted safely and in accordance with the terms of the license. The action was based on failure to: adequately perform certain instrument calibration checks, provide adequate training to individuals performing licensed activities, and establish certain procedures for performing licensed activities; and failure by the RSO to ensure that radiation safety activities were performed in accordance with approved procedures and regulatory requirements. The base civil penalty was mitigated by 50% based on prompt and comprehensive corrective actions once the violations were identified. The licensee responded in a letter dated May 12, 1989. After consideration of the licensee's response, an Order Imposing Civil Penalty was issued July 7, 1989. The licensee paid the civil penalty July 17, 1989.

Ellis Fischel State Cancer Center, Columbia, Missouri  
Supplements IV and VI, EA 89-92

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$5,000 was issued June 7, 1989 to emphasize the importance of ensuring that in the future the licensee will exercise greater control over all NRC licensed activities. The action was based on: (1) replacement of the RSO and the Chairman of the Radiation Safety Committee and adding an area for radioactive waste storage without NRC approval; (2) failure to: perform thyroid bioassays, measure radiation levels in restricted and unrestricted areas, use correction factors when measuring for omolybdenum-99 in eluates, have RSC meet the 3rd quarter of 1988, provide radiation exposure information to one individual when requested, check teletherapy room monitor before each day of use of the unit, include required information on a radiation exposure record, (3) failure of a radiation monitor to indicate that the teletherapy source was partially exposed, and (4) use of licensed material by unauthorized individuals. The base civil penalty was increased by 100% because NRC identified the violations and prior notice in an NRC Information Notice. The licensee responded and paid the civil penalty on June 28, 1989.

General Electric Company, Cleveland, Ohio  
Supplement IV, EA 89-127

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$24,000 was issued August 25, 1989 to emphasize the importance that licensees must place on radiation safety and control of licensed activities. The action was based on violations involving the failure to: perform surveys for fixed and removable alpha contamination, decontaminate areas in excess of alpha contamination limits, perform breathing-zone air sampling, perform adequate surveys for airborne radioactivity, use adequate process or engineering controls to limit airborne radioactivity to Appendix B limits, and to post a "Caution Airborne Radioactivity Area" sign. The base civil penalty was increased by 200% because the NRC identified the violations, the licensee's corrective actions were not timely nor comprehensive, and poor past performance. The licensee responded and paid the civil penalty September 21, 1989.

Grand Haven Board of Light and Power, Grand Haven, Michigan  
Supplement VI, EA 89-60

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$500 was issued May 3, 1989 to emphasize the importance of maintaining adequate control over gauges containing radioactive material. The action was based on violations involving failure to: have authorized and qualified individuals perform removal of gauges from their installed locations, perform source leak tests and device on-off mechanism tests at required intervals, maintain gauge labels legible, maintain records of receipt of byproduct materials, maintain

records of device removals, and furnish a transfer record for a generally licensed gauge to the Commission. The licensee responded on May 25, 1989. After considering the licensee's response, and Order Imposing Civil Penalty was issued August 21, 1989. The licensee paid the civil penalty on August 25, 1989.

Isomedix, Inc., Whippany, New Jersey  
Supplements IV and VI, EA 89-19

A Notice of Violation and Proposed Imposition of Civil Penalties in the amount of \$28,500 was issued June 28, 1989 to emphasize the need for strict adherence to regulatory requirements at all of the licensee's facilities to ensure safe operation. The action was based on three separate deliberate violations involving bypass of the radiation monitor interlock system and a violation involving bypass of a safety system designed to protect individuals from radiation-produced toxic gases. The licensee responded in a letter dated July 26, 1989. After considering the licensee's response, an Order Imposing Civil Penalties was issued September 1, 1989. The licensee paid the civil penalties on September 19, 1989.

Lee County Community Hospital, Pennington Gap, Virginia  
Supplement VII, EA 89-44

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$2,500 was issued April 18, 1989 to emphasize the importance of maintaining required information that is complete and accurate. The action was based on a violation in which the NRC-required record of a quarterly Radiation Safety Committee meeting was fabricated by copying the minutes of a previous meeting and changing just the date. An OI investigation determined that, while the minutes of the meeting were fabricated, the meeting itself was actually held. The licensee responded in letters dated May 18 and August 1, 1989. After considering the responses, an Order Imposing Civil Penalty was issued September 1, 1989. The licensee paid the civil penalty on September 29, 1989.

Professional Service Industries, Inc., Lombard, Illinois  
Supplement IV, EA 88-313

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$20,000 was issued May 23, 1989 to emphasize the need for all licensees, regardless of their size, to comply with NRC requirements and the need to ensure personal accountability for safety compliance. The action was based on failure to secure or maintain continuous surveillance over an unsecured moisture-density gauge in the back of an open bed pickup truck in an unrestricted area. This act of careless disregard by an individual resulted in the theft of the gauge. The base civil penalty was increased 150% because of the recurrence of this problem. The licensee responded in letters dated June 20, 1989. After considering the licensee's response, an Order Imposing Civil Penalty was issued July 24, 1989. The licensee paid the civil penalty on August 23, 1989.



Rappahannock General Hospital, Kilmarnock, Virginia  
Supplement VII, EA 88-287

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$2,500 was issued May 17, 1989 to emphasize the significance that NRC places on deceptive alteration of required documents. The action was based on an incident in which the NRC-required record of a quarterly Radiation Safety Committee meeting was fabricated by copying the minutes of a previous meeting and altering the date. An OI investigation determined that the falsified record represented a meeting that, in fact, had not been held. The licensee responded on May 24, 1989. After considering the response, an Order Imposing Civil Penalty was issued August 30, 1989. The licensee paid the civil penalty on September 11, 1989.

St. Joseph's Hospital, St. Paul, Minnesota  
Supplements IV and VI, EA 89-140

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$4,375 was issued August 22, 1989 to emphasize the importance of ensuring in the future that the licensee will exercise greater management control over all NRC licensed activities. The action was based on violations involving: the failure to perform surveys for radiation levels in unrestricted areas, exceeding of regulatory limits for radiation levels in unrestricted areas, failures to perform wipe tests on the dose calibrator, leak test and inventory sealed sources, perform weekly surveys, properly dispose of radioactive material and maintain a record of a diagnostic misadministration. The base civil penalty was escalated 75% because of prior notice and NRC identification. The licensee responded and paid the civil penalty on September 12, 1989.

The University of Oklahoma, Oklahoma City, Oklahoma  
Supplement VI, EA 89-128

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$7,500 was issued August 23, 1989 to emphasize the importance of maintaining strict compliance with NRC license conditions and conducting only those activities that are authorized by the license. The action was based on a lack of management oversight that resulted in preparation and distribution of unauthorized byproduct material for human use and failure to maintain fume hoods used for storing and processing volatile liquid iodine-131. The licensee responded and paid the civil penalty on September 21, 1989.

Texas Nuclear Corporation, Austin, Texas  
Supplements IV and VI, EA 89-93

A Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$2,500 was issued July 21, 1989 to emphasize the importance of fully assessing potential radiation hazards prior to beginning work, and of promptly evaluating radiation safety

problems and initiating corrective actions to prevent recurrence. The action was based on violations related to an incident that involved the handling of unshielded sealed cesium-137 sources of up to 10 curies. The violations involved failure to notify health physics personnel in order to perform pre-job assessment in accordance with the licensee's procedures, inadequate surveys to determine the potential for radiation exposure, failure to post and restrict access to a high radiation area, failure to utilize personnel radiation monitoring devices, failure to perform a timely and adequate dose evaluation after the fact, and failure to notify the NRC of a potential radiation overexposure. The licensee responded and paid the civil penalty on August 29, 1989.

B. Severity Level III Violation, No Civil Penalty

Bridgeport Hospital, Bridgeport, Connecticut  
Supplements IV and VI, EA 89-137

A Notice of Violation was issued August 3, 1989 based on violations involving failure to: notify the NRC of the appointment of a new RSO, secure the Hot Laboratory when not in use, perform or maintain records of required package receipt radiation level surveys and contamination wipe surveys, perform or maintain records of daily dose calibrator constancy checks, record the results of dose calibrator linearity tests, perform or maintain records of daily area radiation surveys and weekly contamination wipe tests within the Nuclear Medicine department, and properly store radioactive solid waste for a sufficient time prior to disposal. A civil penalty was not proposed because of the licensee's extensive corrective actions and the licensee's past performance.

Cargill, Incorporated, Dayton, Ohio  
Supplements IV and VI, EA 89-168

A Notice of Violation was issued September 13, 1989 based on violations involving removal from service and relocation of a level gauge by unauthorized individuals, failure to secure licensed material stored in an unrestricted area, transferring byproduct material to an entity that was not authorized to receive the material, carrying out the duties of RSO by an unauthorized individual, and (5) failure to conduct inventories as required. A civil penalty was not proposed because the licensee's identification and prompt reporting of the event, prompt and comprehensive corrective action to prevent recurrence, and the licensee's good past performance.

New England Medical Center Hospitals, Boston, Massachusetts  
Supplement VI, EA 89-133

A Notice of Violation was issued July 25, 1989 based on a violation involving a misadministration which occurred at the licensee's facility and was identified and reported to the NRC by the staff. A civil penalty was not proposed because the misadministration and related violation was identified by the licensee and reported to the NRC, and the licensee's corrective actions were prompt and extensive.

I.A. REACTOR LICENSEES, CIVIL PENALTIES AND ORDERS





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I

476 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

July 12, 1989

Docket Nos. 50-317 and 50-318  
License Nos. DPR-53 and DPR-69  
EA 89-107

Baltimore Gas and Electric Company  
ATTN: Mr. George C. Creel  
Vice President  
Nuclear Energy  
Calvert Cliffs Nuclear Power Plant  
MD Rts 2 & 4, Post Office Box 1535  
Lusby, Maryland 20657

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY -  
\$75,000  
(NRC Inspection Report No. 50-317/89-11; 50-318/89-11)

This refers to the special NRC safety inspection conducted during April 17 - 27, 1989 at the Calvert Cliffs Nuclear Power Plant, Units 1 and 2. The inspection report was sent to you on May 18, 1989. The inspection was conducted to review the circumstances associated with two examples of a violation of a technical specification limiting condition for operation which occurred at your facility in April 1989. Both examples were identified by members of your staff and reported to the NRC. During the inspection, the NRC also reviewed the circumstances associated with six examples of a violation of 10 CFR 50.59 which were identified by your staff's review of certain temporary modifications made at the facility. The review was performed in response to a commitment made to the NRC during an onsite meeting on March 10, 1989. On May 30, 1989, an enforcement conference was conducted with you and members of your staff to discuss the violations, their causes and your corrective action. The violations are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty.

The first violation involved two examples of failure to maintain containment refueling integrity while core alterations (namely, uncoupling of control element assemblies) were being performed. The violation occurred for approximately 1½ hours on April 17, 1989 and for approximately 2 hours on April 19, 1989. In each case, containment refueling integrity was not maintained in that a direct path existed from containment (via three small vent valves on a drained service water supply header) through the service water piping to the outside of containment (via either open vent valves or an open flange).

The NRC recognizes that the safety significance of these individual degradations was low since the size of the vent valves inside containment was less than 1/8-th of an inch, the differential pressure to provide the motive force for a radiological release following a postulated fuel handling accident was almost

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negligible, and the actual core alterations in progress were comparatively low risk evolutions. Nonetheless, the NRC is concerned about the lack of control and coordination between operations and maintenance personnel that contributed to these degradations.

In the first instance, although containment refueling integrity had initially been established via control valves in the service water lines, an unrelated maintenance activity was performed after the containment integrity verification procedure had been completed. This maintenance activity was not properly coordinated between operations and maintenance personnel, and resulted in this valve being opened and containment refueling integrity not being maintained. At the time this violation occurred, the responsible operations personnel were unaware of the maintenance activity. Furthermore, the maintenance personnel were neither aware of the need to maintain containment refueling integrity nor the significance of clearing the safety tags which allowed deenergizing of the control valve's solenoid causing the valve to fail open.

In the second instance, which occurred approximately two days later, although containment refueling integrity had again been established using, in this case, two butterfly valves in the service water supply piping, subsequent miscommunication between operations personnel and a lack of understanding of system status resulted in both valves being inadvertently opened and containment integrity again not being maintained while core alterations were performed. In addition to these two events, there were two other instances in April 1989 where containment integrity was inadvertently not maintained because of poorly coordinated maintenance activities. However, there were no core alterations during those instances and therefore a violation did not occur.

This violation demonstrates several weaknesses in the control of operations at Calvert Cliffs. Scheduling and coordination of outage activities were weak, thereby permitting equipment to be manipulated for maintenance purposes without the knowledge of responsible operations staff. Furthermore, the lessons learned from the first event were not promptly or effectively assessed and communicated to the staff, which, if done, may have precluded the occurrence of the second event.

The second violation involved the implementation of six temporary plant modifications between 1987 and 1989 without the required review by the Plant Onsite Safety Review Committee (POSRC) and without the required safety evaluations to confirm that the modifications did not involve unreviewed safety questions. When the evaluations were eventually performed, they confirmed that one of these modifications did in fact involve an unreviewed safety question, as described in the enclosed Notice. The NRC recognizes that the safety significance of this violation was also low because five of the six modifications did not involve unreviewed safety questions, and the other modification though increasing the possibility of a fuel handling event would not have increased its consequences. However, the NRC is concerned that a flaw existed in your procedure for controlling temporary modifications at Calvert Cliffs, thus providing inadequate controls over the modification process. The procedure permitted modification to equipment classified as "not

affecting nuclear safety" without prior 50.59 and POSRC reviews, even if the equipment was described in the FSAR.

The NRC has, in previous correspondence, expressed concerns regarding the (1) lack of sufficient control of operations at Calvert Cliffs, and (2) the lack of adequate coordination and communication among and between departments. These prior concerns were expressed during previous SALP evaluations, in a \$150,000 civil penalty issued to you on August 19, 1988 for two other violations of NRC requirements, and in several other Severity Level IV and V violations issued since that time concerning inadequate control of procedure changes, lack of POSRC reviews, and failure to adhere to procedural requirements. The enclosed violations demonstrate that these concerns continue to exist at Calvert Cliffs and aggressive management involvement is needed to prevent further problems in these areas.

Accordingly, a need exists for better control of operations at Calvert Cliffs, and better coordination both within and among the departments to assure (1) the reactors are operated in accordance with the technical specifications and regulatory requirements, and (2) changes to the facility are only made after the changes receive adequate safety reviews. To emphasize this need, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Seventy-Five Thousand Dollars (\$75,000) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violations described in the enclosed Notice have been categorized as a Severity Level III problem.

The base civil penalty amount for a Severity Level III problem is \$50,000. The escalation and mitigation factors of the Enforcement Policy were considered and overall a 50 percent escalation of the base civil penalty was found appropriate. With respect to identification and reporting, no adjustment of the base civil penalty was deemed appropriate despite the fact that the violations were identified by your staff. In the case of violation A, mitigation under that factor was viewed as unwarranted because adequate corrective actions were not taken subsequent to identification of the first event to prevent the second event. For violation B, mitigation for identification was unwarranted because the violation was not identified until after a review was done in response to a commitment to the NRC. In considering corrective actions, it was also found that no adjustment to the base civil penalty should be made. With respect to violation A, four separate instances where containment integrity was not maintained are not indicative of prompt or extensive actions. While the short-term actions for violation B were reasonable, the long-term actions were not yet finalized and overall the actions were not considered prompt and extensive. In the area of past performance, a 50 percent escalation of the civil penalty was deemed appropriate. Previous NRC correspondence including SALP evaluations, have expressed concerns about inadequate control of operations and inadequate engineering reviews. Full 100 percent escalation based on past



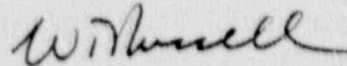
performance was not applied because previous concerns with control of operations did not specifically focus on the operations/maintenance interface and there is not recent enforcement history concerning violations of 10 CFR 50.59 requirements. The other factors set forth in the enforcement policy were considered and found not to be applicable in this case.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation and Proposed Imposition of Civil Penalty

cc w/encl:

W. J. Lippold, General Supervisor, Technical Services Engineering  
T. Magette, Administrator, Nuclear Evaluations  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector  
State of Maryland (2)

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Baltimore Gas and Electric Company  
Calvert Cliffs, Units 1 and 2

Docket Nos. 50-317; 50-318  
License Nos. DPR-53; DPR-69  
EA 89-107

During an NRC inspection conducted between April 17-27, 1989, NRC inspectors reviewed the circumstances associated with two examples of a violation of containment refueling integrity and six examples of plant modifications made without required safety evaluations. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the Nuclear Regulatory Commission proposes to impose civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. Technical Specification Limiting Condition for Operation (LCO) 3.9.4.c requires, in part, that during core alterations, each containment penetration providing direct access from the containment atmosphere to the outside atmosphere shall be either (1) closed by an isolation valve, blind flange or manual valve, or (2) be capable of being closed by an operable automatic containment purge valve. Technical Specification LCO Action Statement 3.9.4 specifies that if the Technical Specification requirements can not be met, all operations involving core alterations shall be suspended.

Contrary to the above, between 2:15 p.m. and 3:50 a.m. on April 17, 1989, and between 4:25 p.m. and 6:35 a.m. on April 19, 1989, core alterations (involving the uncoupling of control element assemblies) were performed in the Unit 2 containment, even though some containment penetrations providing direct access from the containment atmosphere to the outside atmosphere were neither (1) closed by an isolation valve, blind flange or manual valve, nor (2) capable of being closed by an automatic containment purge valve. Specifically, a direct access path existed from the containment atmosphere through the drained service water supply header for the No. 21 Containment Air Cooler (via three automatic vent valves No. 2-SRW-249, 2-SRW-245, and 2-SRW-244) to the outside atmosphere (via either an open valve or an open flange), as set forth below:

1. on April 17, 1989, the direct access path from the service water piping to the outside of containment was via either (a) open control valve (No. 2-CV-1582) and open vent valve (No. 2-SRW-470), or (b) an open flange where butterfly valve 2-SRW-138 had been removed; and
2. on April 19, 1989, the direct access path from the service water header to the outside of containment was via open butterfly valves 2-SRW-138 and 2-SRW-139, and vent valve 2-SRW-470.

- B. 10 CFR 50.59(a)(1) states, in part, that the licensee may make changes to the facility as described in the Final Safety Analysis Report (FSAR) provided the changes do not involve an unreviewed safety question. 10 CFR 50.59(a)(2) states, in part, that a change shall be deemed to involve an unreviewed safety question if the proposed change may increase the probability of an occurrence or the consequences of an accident previously evaluated in the FSAR. 10 CFR 50.59(b)(1) requires, in part, that records of changes be maintained, and must include a written safety evaluation which provides the basis for the determination that the change did not involve an unreviewed safety question.

Technical Specification 6.5.1.6 requires that all proposed changes or modifications to plant systems or equipment that effect nuclear safety shall be reviewed by the Plant Onsite Safety Review Committee (POSRC).

Contrary to the above, between February 24, 1987 and February 18, 1989, six temporary modifications made to plant equipment (involving changes to the facility as described in the FSAR and which affected nuclear safety) were made without a written safety evaluation and without the changes first being reviewed by the POSRC to ensure that the changes did not involve an unreviewed safety question. The specific changes involved:

1. No. 1-87-47, installed May 7, 1987, on the Unit 1 Oxygen Analyzer;
2. No. 1-88-54, installed April 22, 1988, on the Refueling Machine;
3. No. 1-88-145, installed August 2, 1988, on the Unit 1 No. 11B Reactor Coolant Pump low lift pump pressure alarm;
4. No. 2-89-6, installed February 18, 1989, on Unit 2 to encapsulate a steam leak on a feedwater heater valve;
5. No. 2-89-8, installed February 22, 1989, on a Unit 2 secondary steam valve; and
6. No. 1-87-24, installed February 24, 1989, on the Unit 1 Oxygen Analyzer.

Further, one of the changes, No. 1-88-54, involved an unreviewed safety question in that the change allowed a Refueling Machine limit switch to be bypassed which in turn would allow a spent fuel assembly to be lowered onto the upender while the upender was not completely vertical, thereby increasing the probability of a fuel handling accident.

This is a Severity Level III problem (Supplement I).

Civil Penalty - \$75,000 (assessed equally between the violations).

Pursuant to the provisions of 10 CFR 2.201, Baltimore Gas and Electric Company is hereby required to submit a written statement of explanation to the



Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance was or will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy) should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

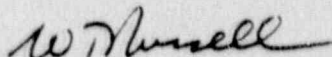
The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington,

Notice of Violation

-4-

DC 20555, a copy to the Regional Administrator, U. S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, PA, 19406 and a copy to the NRC Senior Resident Inspector, Calvert Cliffs.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this ~~7th~~ day of July 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
476 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

August 23, 1989

Docket No. 50-293  
License No. DPR-35  
EA 89-95

Boston Edison Company  
ATTN: Mr. Ralph G. Bird  
Senior Vice President - Nuclear  
Pilgrim Nuclear Power Station  
RFD #1 Rocky Hill Road  
Plymouth, Massachusetts 02360

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$25,000  
(NRC Inspection Report No. 50-293/89-80)

This letter refers to the NRC Augmented Team (AIT) inspection conducted on April 13-19, 1989 at the Pilgrim Nuclear Power Station, Plymouth, Massachusetts to review the circumstances associated with an event which occurred at Pilgrim on April 12, 1989 involving the overpressurization of the Reactor Core Isolation Cooling (RCIC) System. The report of this inspection was sent to you on May 8, 1989. As a result of the inspection violations of NRC requirements were identified. On June 19 and July 19, 1989, two enforcement conferences were conducted with you and members of your staff to discuss the event, the associated violations, causes and your corrective action.

The event occurred while the reactor was at 25% power during a test of the RCIC system logic. Prior to the test, a licensed operator and an auxiliary operator incorrectly positioned, and then incorrectly verified the positions of, several circuit breakers for motor operated valves for the test. These failures constitute violations of NRC requirements which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) and represent a significant regulatory concern to the NRC. The NRC is also concerned that the test was not adequately planned and controlled by supervision, nor were plant conditions adequately monitored during the test. These failures to properly plan, supervise, and inspect the tagout of the circuit breakers directly contributed to this event.

The NRC recognizes that the safety significance of this event was minor, as described in the AIT report and the letter transmitting it, because several barriers remained intact or available to mitigate the consequences of a potential intersystem loss of coolant accident. The NRC also recognizes that your response to the event, as well as your subsequent investigation and corrective actions, were prompt and comprehensive. Nonetheless, these multiple failures within the operations department represented a significant lapse of attention to safety responsibilities, and therefore, the violations are classified in the aggregate at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989) (Enforcement Policy).



To emphasize the need for management to assure that all personnel understand and carry out the station equipment tagout requirements, I have been authorized, after consultation with the Director of Enforcement and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice in the amount of Twenty-Five Thousand Dollars (\$25,000). The escalation and mitigation factors in the Enforcement Policy were considered as follows:

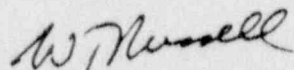
Mitigation of the base civil penalty was considered for your investigation into the cause of the event and the prompt report made to the NRC; however, several levels of supervision failed to properly implement procedures which could have detected the improperly positioned circuit breakers and prevented the event from occurring. Therefore, mitigation was not considered appropriate based on the identification factor. Mitigation of the civil penalty was warranted because your corrective actions, as described at both enforcement conferences and reviewed during the AIT inspection, were prompt and extensive. The other escalation and mitigation factors were considered and no further adjustment is considered appropriate. Therefore, based on the above, the base civil penalty has been decreased by 50 percent.

You are required to respond to this letter and the enclosed Notice; and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to take to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure:  
Notice of Violation and Proposed Imposition  
of Civil Penalty

cc w/encl:

K. Highfill, Station Director  
R. Anderson, Plant Manager  
J. Dietrich, Licensing Division Manager  
E. Robinson, Nuclear Information Manager  
R. Swanson, Nuclear Engineering Department Manager  
The Honorable Edward J. Markey  
The Honorable Edward P. Kirby  
The Honorable Peter V. Forman  
The Honorable Lawrence R. Alexander  
The Honorable Nicholas J. Costello  
B. McIntyre, Chairman, Department of Public Utilities  
Chairman, Plymouth Board of Selectmen  
Chairman, Duxbury Board of Selectmen  
Plymouth Civil Defense Director  
P. Agnes, Assistant Secretary of Public Safety, Commonwealth of Massachusetts  
S. Pollard, Massachusetts Secretary of Energy Resources  
R. Shimshak, MASSPIRG  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector  
Commonwealth of Massachusetts (2)

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Boston Edison Company  
Pilgrim Nuclear Power Station

Docket No. 50-293  
License No. DPR-35  
EA 89-95

On April 13-19, 1989, an NRC Augmented Inspection Team (AIT) inspection was conducted to establish and evaluate the facts associated with the overpressurization of the Reactor Core Isolation Cooling (RCIC) System on April 12, 1989. Based on an evaluation of the AIT inspection, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989), the Nuclear Regulatory Commission (NRC) proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

Technical Specification 6.8.A requires that written procedures and administrative policies be established and implemented that meet or exceed the requirements of Section 5.1 of ANSI N18.7-1972. ANSI N18.7-1972, Section 5.1, "Rules of Practice," states that rules and instructions pertaining to personnel conduct and control and method of conducting operations shall be established. Section 5.1.2 states that procedures shall be followed.

- A. Procedure 1.4.5, "PNPS Tagging Procedure," Revision 24, Step 2.1.4 states that whenever work is to be done on or near any equipment under the jurisdiction of Boston Edison Company, this procedure shall be followed. Step 6.2.1 states that red tags must be placed by use of the tagout sheet. Step 6.4.8 states that the Operating Supervisor will assign another responsible person to verify the isolation (if required).

Procedure 1.3.34, "Conduct of Operations," Revision 17, Step 6.5[4](b)(1) states that the verifier may not accompany the individual who performed the lineup and may not participate in the activity being verified.

Contrary to the above, at about 8:23 a.m. on April 12, 1989, during installation of the tagout in preparation for a system logic test of the Reactor Core Isolation Cooling System in accordance with Procedure 8.M.2-2.10.11.1, the above mentioned procedures were not followed in that,

1. tagging errors occurred in that breakers for three valves (Nos. MO-1303-48, 26 and 22) were left closed and energized, contrary to the desired position on the tagout sheet; breakers for two valves (Nos. MO-1301-60 and 62) were opened/deenergized, contrary to the tagout sheet's desired position of closed/energized; and the breaker for valve MO-1301-17 was left



open/deenergized and tagged in that position contrary to the fact that this breaker was not to have been affected by the tagout; and

2. operators required to perform and verify the tagouts for the system logic testing per Procedure 8.M.2-2.10.11.1 performed these activities in the same location (MCC-D7) at the same time.

- B. Procedure 1.4.5, "PNPS Tagging Procedure," Revision 24, Step 6.4.10 states that the supervisor who is in charge of the work for which the isolation is made (or a designated member of the work crew) shall review the physical isolation and tagging in the field prior to beginning work. The supervisor or work crew member shall sign the "Isolation Reviewed/Inspection By" block on the tagout sheet.

Contrary to the above, at about 8:37 a.m. on April 12, 1989, during preparations for the test of the RCIC system logic testing in accordance with Procedure 8.M.2-2.10.11.1, neither the supervisor nor a designated alternate in charge of the testing physically inspected the equipment isolation and tagging, as required, prior to the beginning of the work.

- C. Procedure 1.3.34, "Conduct of Operations," Revision 17, Step 6.10 states that certain complex or infrequently performed activities warrant a pre-evolution briefing which is to be conducted for events which may result in challenges to safety systems if improperly conducted (such as Logic System Tests).

Step 5.6[2] states that the Nuclear Plant Reactor Operator (NPRO) is responsible for reviewing plant status upon relieving the watch and for maintaining an awareness of changes in plant conditions. Step 5.6[3] states that the NPRO is responsible for maintaining alertness at all times in order to ensure that the plant is operating safely.

Contrary to the above, on April 12, 1989, a pre-evolution briefing was not conducted prior to the commencement of the test of the RCIC system logic testing in accordance with Procedure 8.M.2-2.10.11.1. Further, the licensed Nuclear Plant Reactor Operator did not maintain awareness of plant conditions at all times in that when he performed control board switch manipulations per Procedure 8.M.2-2.10.11.1, he did not notice that the position indicator lights for eight of the RCIC system valves were incorrectly lit.

- D. Procedure 1.3.34, "Conduct of Operations," Revision 17, Step 6.12[1] states that approved written procedures and instructions shall be adhered to by all station personnel. The Acceptance Criteria of the RCIC system logic testing (Procedure No. 8.M.2-2.10.11.1) require that the test be performed as written without discrepancies, and is so indicated by Attachment A being completed with required signatures and initials, and second verification of system restoration.

Contrary to the above, on October 5, 1988, although an apparent discrepancy existed when the system logic of the RCIC system was performed in accordance with Procedure 8.M.2-2.10.11.1, the test was accepted without noting the apparent procedural discrepancy.

Specifically, the procedure contained an erroneous breaker identification for the RCIC pump discharge downstream injection valve; however, test personnel tagged the correct breaker without noting the discrepancy or pursuing a procedure change.

These violations are classified in the aggregate as a Severity Level III problem (Supplement I).

Civil Penalty - \$25,000

Pursuant to the provisions of 10 CFR 2.201, Boston Edison Company (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

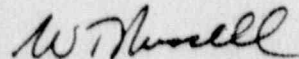
In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate

parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region I, U.S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, Pennsylvania 19406, and a copy to the NRC Senior Resident Inspector, Pilgrim Nuclear Power Station.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this ~~23~~ day of August 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

MAY 05 1988

Docket Nos. 50-325, 50-324  
License Nos. DPR-71, DPR-62  
EA 87-165

Carolina Power & Light Company  
ATTN: Mr. E. E. Utley  
Senior Executive Vice President  
Power Supply and Engineering  
and Construction  
Post Office Box 1551  
Raleigh, North Carolina 27602

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC INSPECTION REPORT NOS. 50-325/87-22 AND 50-324/87-22)

This refers to the Nuclear Regulatory Commission (NRC) inspection at the Brunswick Steam Electric Plant (BSEP) on July 6-10, 1987. The inspection included a review of the circumstances surrounding several licensee-identified items not in compliance with 10 CFR 50.49, Environmental Qualification (EQ) of Electric Equipment. The report documenting this inspection was sent to you by letter dated August 27, 1987. As a result of this inspection, significant failures to comply with NRC regulatory requirements were confirmed, and NRC concerns relative to the inspection were discussed in an Enforcement Conference held on September 17, 1987. The letter documenting this conference was sent to you on October 9, 1987.

During the Enforcement Conference on September 17, 1987, Carolina Power & Light Company provided its plan for expanding the Limitorque Motor Operated Valve inspection program. This inspection program resulted in your identification of other EQ deficiencies. These licensee-identified deficiencies included unqualified Allen-Bradley nylon terminal blocks, Collier PVC wire, GE phenolic terminal blocks, additional Whitney-Blake wire, and electrical butt splices. These deficiencies were reported to the NRC and have been corrected.

The violations described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involved failures to comply with the requirements of 10 CFR 50.49, and examples of the violations included the failure of speed sensors for the High Pressure Coolant Injection (HPCI) turbine, Vulkene wire, Whitney-Blake wire, control relays for the Standby Gas Treatment (SBGT) skid, Kulka terminal blocks, Cinch terminal blocks, and unidentified teflon-type wire to be environmentally qualified since November 30, 1985. The deficiencies identified in the qualification of these components affected a moderate number of plant systems.

MAY 05 1988

The NRC believes that Carolina Power and Light clearly should have known about the environmental qualification deficiencies identified above and would have discovered many of them had adequate field verification inspections been performed and if there had been adequate design interface control for skid-mounted components. For a number of the identified deficiencies, the licensee had information available which discussed environmental qualification concerns of similar components. Specifically, two Inspection and Enforcement (IE) Notices as well as an IE Circular notified licensees of the possible problems with environmental qualification of terminal blocks. The need to properly qualify cable/wire was also discussed in an IE Notice, yet the licensee used unqualified wire in making changes to components required to be environmentally qualified. In the case of the Woodward speed sensors, used on the HPCI turbines, the information contained in an October 1985 report from General Electric (NEDC-31001-1) should have alerted the licensee to the need to qualify the sensors. With respect to other unqualified components, you clearly should have known that qualification was incomplete in light of the nature of the items and the systems in which they were used.

To emphasize the importance of environmental qualification of electrical equipment important to safety, I have been authorized, after consultation with the Deputy Executive Director for Regional Operations, and the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Enclosure 1) in the amount of Fifty Thousand Dollars (\$50,000) for the violations described in the enclosed Notice. In accordance with the "Modified Enforcement Policy Relating to 10 CFR 50.49," contained in Generic Letter 88-07 (Enclosure 2), the violations described in the enclosed Notice have been determined to be a moderate problem, having affected some systems and components, and therefore are considered to be an EQ Category B problem. The base value of a civil penalty for an EQ Category B problem is \$150,000.

The escalation and mitigation factors in the "Modified Enforcement Policy Relating to 10 CFR 50.49" were considered as follows. Mitigation of the base civil penalty is appropriate because of your identification and prompt reporting of some of the EQ deficiencies, your best efforts to be in compliance within the EQ deadline, and initiation of vigorous and extensive corrective actions which should result in your being in full EQ compliance. Based on these considerations, the penalty has only been reduced to \$50,000 because the violations were not isolated and affected more than a limited number of systems and components.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.



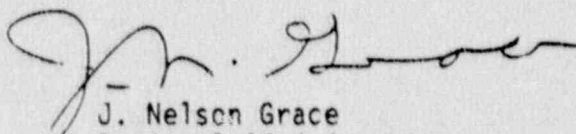
MAY 05 1988

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

The responses directed by this letter and its enclosures are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511,

Should you have any questions concerning this letter, please contact us.

Sincerely,



J. Nelson Grace  
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Generic Letter 88-07

cc w/encls:

P. W. Howe, Vice President  
Brunswick Nuclear Project  
C. R. Dietz, Plant General Manager



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Carolina Power & Light Company  
Brunswick Steam Electric Plant  
Units 1 and 2

Docket Nos. 50-325, 50-324  
License Nos. DPR-71, DPR-62  
EA 87-165

During the Nuclear Regulatory Commission (NRC) inspection conducted on July 6-10, 1987, violations of NRC requirements were identified. In accordance with the "Modified Enforcement Policy Relating to 10 CFR 50.49, Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants," contained in Generic Letter 88-07, the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282 and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

10 CFR 50.49(d), (f), and (j), respectively, require, in part, that: (1) a list of electric equipment important to safety be prepared, and information concerning performance specifications, electrical characteristics and postulated environmental conditions for this equipment be maintained in a qualification file, (2) each item of electric equipment important to safety shall be qualified by testing of, or experience with, identical or similar equipment, and qualifications shall include a supporting analysis to show that the equipment to be qualified is acceptable, and (3) a record of the qualification of the electric equipment shall be maintained in a qualification file in an auditable form to permit verification that the required equipment is qualified and that the equipment meets the specified performance requirements under postulated environmental conditions.

Contrary to the above:

1. From November 30, 1985 to October 18, 1986, for Unit 1, and from June 15, 1986 to October 21, 1986, for Unit 2, the licensee did not have: (1) the Woodward speed sensors for the High Pressure Coolant Injection (HPCI) system on the list of electric equipment important to safety (Master List of qualified equipment), (2) the speed sensors for HPCI turbines tested for qualification, and (3) documentation to verify qualification of the speed sensors in an auditable form.
2. From November 30, 1985 to September 1986, for Unit 2, the licensee did not have: (1) the Vulkene wire installed by the licensee, in valve actuators required to be environmentally qualified, on the Master List of qualified equipment, (2) the wire tested for qualification, and (3) documentation to verify qualification of the wire in an auditable form.
3. From November 30, 1985, to July 1987, for Unit 1, the licensee did not have: (1) the Whitney-Blake wire installed by the licensee, in valve actuators required to be environmentally qualified, on the Master List of qualified equipment, (2) the wire tested for qualification, and (3) documentation to verify qualification of the wire in an auditable form.

Notice of Violation

- 2 -

4. From November 30, 1985 to November 21, 1986, for Units 1 and 2, the licensee did not have: (1) the control relays for the Standby Gas Treatment (SBGT) skid on the Master List of qualified equipment, (2) the relays tested for qualification, and (3) documentation to verify qualification of the relays in an auditable form.
5. From November 30, 1985 to March 10, 1987, for Unit 1, the licensee did not have: (1) Kulka terminal blocks, for components required to be environmentally qualified, on the Master List of qualified equipment, (2) the terminal block tested for qualification, and (3) documentation to verify qualification of the terminal block.
6. From November 30, 1985 to July 7, 1987, for Unit 2, the licensee did not have: (1) Cinch terminal blocks, for components required to be environmentally qualified, on the Master List of qualified equipment, (2) the terminal blocks tested for qualification, and (3) documentation to verify qualification of the terminal blocks.
7. From November 30, 1985 to March 11, 1987, for Unit 1, the licensee did not have: (1) unidentified teflon-type wire (used on the SBGT skid) on the Master List of qualified equipment, (2) the unidentified teflon-type wire tested for qualification, and (3) documentation to verify qualification of the unidentified teflon-type wire.
8. From November 30, 1985 to July 1987, for Units 1 and 2, the licensee did not have: (1) documentation to verify that qualification of the HPCI condensate float switches was not required or (2) the HPCI condensate float switches on the Master List of qualified equipment with documentation of qualification in an auditable form.
9. From November 30, 1985 to October 1987, for Units 1 and 2, the licensee did not have documentation to verify qualification of the following items used in Limitorque Motor Operators: Allen-Bradley nylon terminal blocks, GE phenolic terminal block, and electrical butt splices. Additionally, various motor operators contained Collier PVC wire installed by the licensee for which qualification documentation was not available.

This is an EQ Category B problem.

Civil Penalty - \$50,000

(The facility operated in excess of 100 days in violation of EQ requirements.)

Pursuant to the provisions of 10 CFR 2.201, Carolina Power & Light Company (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, Nuclear Regulatory Commission, within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) admission or denial of the violation, (2) the reason for



the violation if admitted, (3) the corrective steps which have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending the response time. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action, as may be proper, should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to Treasurer of the United States in the amount of the civil penalty proposed above or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an Order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such an answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation of this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such an answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in the "Modified Enforcement Policy Relating to 10 CFR 50.49, Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants," contained in Generic Letter 88-07 should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due, which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement,



Notice of Violation

- 4 -

U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region II, U.S. Nuclear Regulatory Commission, and a copy to the NRC Resident Inspector at the Brunswick Steam Electric Plant.

FOR THE NUCLEAR REGULATORY COMMISSION



J. Nelson Grace  
Regional Administrator

Dated at Atlanta, Georgia  
this 5<sup>th</sup> day of May 1988



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

JUN 26 1989

Docket Nos. 50-325 and 50-324  
License Nos. DPR-71 and DPR-62  
EA 87-165

Carolina Power and Light Company  
ATTN: Mr. E. E. Utley  
Senior Executive Vice President  
Power Supply and Engineering  
and Construction  
Post Office Box 1551  
Raleigh, North Carolina 27602

Gentlemen:

SUBJECT: ORDER IMPOSING A CIVIL MONETARY PENALTY (BRUNSWICK)

This refers to your letter dated July 1, 1988, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by our letter dated May 5, 1988, related to NRC Inspection Report Nos. 50-325/87-22 and 50-324/87-22 sent to you by our letter dated August 27, 1987. Our letter and Notice described one Environmental Qualification (EQ) Category B problem regarding the environmental qualification of electrical equipment important to safety. This problem affected a moderate number of components and plant systems and it resulted from inadequate field inspections/verifications and inadequate design interface controls. To emphasize the need to ensure qualification of electrical equipment important to safety, a civil penalty of Fifty Thousand Dollars (\$50,000) was proposed.

The NRC staff has reviewed your response in which you admit the deficiencies but protest the imposition of a civil penalty. The protest is based upon arguments that (1) the NRC failed to establish that you "clearly should have known" about the EQ violations prior to November 30, 1985; (2) the NRC improperly cited CP&L for a Unit 2 deficiency that was corrected prior to operation following the November 30, 1985 deadline; (3) the NRC incorrectly classified the violations as significant; and (4) the NRC incorrectly grouped the violations as an EQ Category B problem.

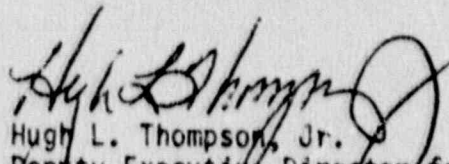
After careful consideration of your response to the Notice of Violation and Proposed Imposition of Civil Penalty, the NRC staff has concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty, that (1) the "clearly should have known" criterion was properly applied, (2) the violation involving the Vulkene wire in a Unit 2 motor operator should be withdrawn as the deficiency was corrected prior to operation after the deadline, (3) the NRC correctly classified the violations as significant, and (4) considering only the remaining violations, the NRC still concludes that an EQ Category B problem existed. Accordingly, the NRC staff hereby serves the enclosed Order on Carolina Power and Light Company imposing a civil monetary penalty in the amount of Fifty Thousand Dollars (\$50,000). The effectiveness of your corrective actions will be reviewed during subsequent inspections.

Carolina Power & Light Co.

- 2 -

In accordance with Section 2.790 of the NRC's "Rule of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

Sincerely,

  
Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Enclosure:  
Order w/Appendix

cc w/encl:  
R. Starkey, Manager  
Brunswick Nuclear Project  
J. Harness, Plant General Manager



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
Carolina Power & Light Company  
(Brunswick Units 1 and 2)

)  
)  
)

Docket Nos. 50-325 and 50-324  
License Nos. DPR-71 and DPR-62  
EA 87-165

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Carolina Power and Light Company, Raleigh, North Carolina (licensee) is the holder of Operating License Nos. DPR-71 and DPR-62 (licenses) issued by the Nuclear Regulatory Commission (Commission or NRC) on November 12, 1976 and December 27, 1974, respectively. The licenses authorize the licensee to operate the Brunswick Units 1 and 2 in accordance with the conditions specified therein.

II

NRC inspection of the licensee's activities under the licenses was conducted on July 6-10, 1987. The results of this inspection indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated May 5, 1988. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violations. The licensee responded to the Notice by letter dated July 1, 1988. In its response, the licensee agreed that the deficiencies constituted violations of regulatory requirements. However, for a variety of reasons associated with the application of the NRC's "Modified Enforcement Policy Relating to 10 CFR 50.49" (Modified Policy), the licensee contended that no civil penalty should be levied.

III

After consideration of the licensee's response and the statements of fact, explanations, and argument for mitigation contained therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support (DEDS) has determined, as set forth in the Appendix to this Order, that the violations, with the exception of the violation involving Vulkene wire in a Unit 2 motor operator, occurred as stated. The DEDS has also determined that the remaining violations still constitute a Category B problem under the Modified Policy and that the penalty proposed for this problem in the Notice of Violation and Proposed Imposition of the Civil Penalty should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2282, PL 96-295) and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Fifty Thousand Dollars (\$50,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with copies to the Assistant General Counsel for Hearings and Enforcement, at the same address, the Regional Administrator, Region II, 101 Marietta Street, N.W., Atlanta, Georgia 30323, and a copy to the NRC Resident Inspector at Brunswick.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions to this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

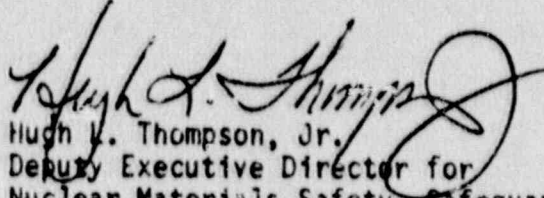
In the event the licensee requests a hearing as provided above, the issues to be considered at such hearing shall be:

- (a) whether the licensee was in violation of the Commission's requirements as set forth in the Notice of Violation and Proposed Imposition of Civil Penalty referenced in Section II as modified in Section III, and



(b) whether, on the basis of such a violations, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Dated at Rockville, Maryland  
this 26<sup>th</sup> day of June 1989

## APPENDIX

### EVALUATIONS AND CONCLUSION

On May 5, 1988, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) to Carolina Power and Light Company (CP&L or licensee) for deficiencies relating to the environmental qualification (EQ) of electrical equipment important to safety. On June 3, 1988, CP&L requested, and was granted, a 30 day extension to respond to the Notice. By letter dated July 1, 1988, CP&L responded to the Notice by stating that CP&L has reviewed the Notice and agrees that the violations occurred, with one exception. However, the licensee disagreed with the proposed civil penalty. Principally, the licensee argues that the NRC's "Modified Enforcement Policy Relating to 10 CFR 50.49" (Modified Policy) was misapplied. The NRC's evaluations and conclusions regarding CP&L's response follow.

#### RESTATEMENT OF THE VIOLATIONS

10 CFR 50.49(d), (f) and (j), respectively, require, in part, that: (1) a list of electric equipment important to safety be prepared, and information concerning performance specifications, electrical characteristics and postulated environmental conditions for this equipment be maintained in a qualification file, (e) each item of electric equipment important to safety shall be qualified by testing of, or experience with, identical or similar equipment, and qualifications shall include a supporting analysis to show that the equipment to be qualified is acceptable, and (3) a record of the qualification of the electrical equipment shall be maintained in a qualification file in an auditable form to permit verification that the required equipment is qualified and that the equipment meets the specified performance requirements under postulated environmental conditions.

Contrary to the above:

1. From November 30, 1985 to October 18, 1986, for Unit 1, and from June 15, 1986 to October 21, 1986, for Unit 2, the licensee did not have: (1) the Woodward speed sensors for the High Pressure Coolant Injection (HPCI) system on the list of electric equipment important to safety (Master List of qualified equipment), (2) the speed sensors for HPCI turbines tested for qualification, and (3) documentation to verify qualification of the speed sensors in an auditable form.
2. From November 30, 1985 to September 1986, for Unit 2, the licensee did not have: (1) the Vulkene wire installed by the licensee, in valve actuators required to be environmentally qualified, on the Master List of qualified equipment, (2) the wire tested for qualification, and (3) documentation to verify qualification of the wire in an auditable form.
3. From November 30, 1985, to July 1987, for Unit 1, the licensee did not have: (1) the Whitney-Blake wire installed by the licensee, in valve actuators required to be environmentally qualified, on the Master List of qualified equipment, (2) the wire tested for qualification, and (3) documentation to verify qualification of the wire in an auditable form.

- (4) From November 30, 1985 to November 21, 1986, for Units 1 and 2, the licensee did not have: (1) the control relays for the Standby Gas Treatment (SBGT) skid on the Master List of qualified equipment, (2) the relays tested for qualification, and (3) documentation to verify qualification of the relays in an auditable form.
- (5) From November 30, 1985 to March 10, 1987, for Unit 1, the licensee did not have: (1) Kulka terminal blocks, for components required to be environmentally qualified, on the Master List of qualified equipment, (2) the terminal block test for qualification, and (3) documentation to verify qualification of the terminal block.
- (6) From November 30, 1985 to July 7, 1987, for Unit 2, the licensee did not have: (1) Cinch terminal blocks, for components required to be environmentally qualified, on the Master List of qualified equipment, (2) the terminal blocks tested for qualification, and (3) documentation to verify qualification of the terminal blocks.
- (7) From November 30, 1985 to March 11, 1987, for Unit 1, the licensee did not have: (1) unidentified teflon-type wire (used on the SBGT skid) on the Master List of qualified equipment, (2) the unidentified teflon-type wire tested for qualification, and (3) documentation to verify qualification of the unidentified teflon-type wire.
- (8) From November 30, 1985 to July 1987, for Units 1 and 2, the licensee did not have: (1) documentation to verify that qualification of the HPCI condensate float switches was not required or (2) the HPCI condensate float switches on the Master List of qualified equipment with documentation of qualification in an auditable form.
- (9) From November 30, 1985 to October 1987, for Units 1 and 2, the licensee did not have documentation to verify qualification of the following items used in Limitorque Motor Operators: Allen-Bradley nylon terminal blocks, GE phenolic terminal block, and electrical butt splices. Additionally, various motor operators contained Collier PVC wire installed by the licensee for which qualification documentation was not available.

#### Summary of Licensee's Response

CP&L contends that the Notice fails to establish that CP&L "clearly should have known" of the violations prior to November 30, 1985. CP&L maintains that the Notice also (1) incorrectly alleges an EQ violation in the case of the Vulkene wire in the Unit 2 motor operator, (2) incorrectly classifies the violations as significant, and (3) incorrectly groups the violations as an EQ Category B problem.

#### 1. "Clearly Should Have Known" Test

CP&L contends that the NRC staff failed to specifically analyze the factors set forth in the Modified Policy and has failed to describe in detail, for each alleged deficiency, the facts relied upon in concluding that CP&L "clearly should have known" of the deficiencies. Additionally, CP&L stated that "A mere recitation of the conclusion that the licensee clearly should have known is not sufficient."



CP&L states it is possible that NRC staff conducted a detailed inquiry. In this case, however, the licensee concludes that the Notice provides only a cursory summary of the conclusions reached. Despite that conclusion, the licensee did provide arguments to support the position that CP&L should not clearly have known of these violations. The broadest of the arguments provided was the assertion that, based on previous NRC and NRC-sponsored reviews, CP&L had a reasonable basis to believe that compliance with 10 CFR 50.49 had been achieved.

In summary, CP&L feels that the NRC failed to provide a legally sufficient factual basis for each and every "clearly should have known" finding and, therefore, cannot conclude that CP&L "clearly should have known" of the violations. Thus, CP&L has been deprived of the opportunity to respond meaningfully to the Notice.

2. The Vulkene Wire in the Unit 2 Motor Operator Replaced Prior to Operation After the Deadline

CP&L contends that the violation involving the Vulkene wire should be withdrawn as the deficiency on Unit 2, although it existed prior to the deadline, was corrected prior to Unit 2 operation after the deadline.

3. EQ Violations not Sufficiently Significant to Merit a Civil Penalty Under the Modified Policy

CP&L contends that violations 1, 2, 3, 4, 5, 6, and 8, and part of violation 9 are in a category analogous to the category described in Part III of the Modified Policy, which addresses those violations of 10 CFR 50.49 found not to be sufficiently significant as to warrant a civil penalty under the Modified Policy. This contention is based on the premise that the only difference between the cited violations and the violations in the Modified Policy is that the cited violations were licensee-identified. CP&L maintains that it is inappropriate to apply escalated enforcement for each of the referenced licensee-identified violations. CP&L also maintains that, based on data available to the company, it was able to demonstrate that the components were qualified or qualifiable. CP&L also contends that the resolution to the deficiencies was performed in a time period commensurate with the time that a licensee would have had during an inspection to respond to an inspector.

Based on the above, CP&L contends that the referenced violations should be classified as not sufficiently significant for assessment of civil penalties.

4. Categorization of the Violations

As noted above, CP&L argues that only violation 7 and part of violation 9 are significant deficiencies in accordance with the Modified Policy, affecting only two components in two systems. Therefore, the licensee contends that only two deficiencies should be considered in aggregate resulting in an EQ Category C problem for which full mitigation is warranted.

5. Other Reasons Why the Civil Penalty Should Not Be Imposed

CP&L contends that the NRC is taking escalated enforcement for violations 1, 2, and 3 when the NRC is on record as saying that it would take no enforcement action for deficiencies involving Limitorque motor operator wiring qualification.

6. Summary

CP&L agrees that the deficiencies cited in the Notice with one exception constitute violations of 10 CFR 50.49. The licensee maintains, however, that due to the circumstances that apply to the specific deficiencies and following the guidance of the Modified Policy, no civil penalty should be levied for these EQ deficiencies.

NRC's Evaluation of Licensee's Response

1. NRC Evaluation of the "Clearly Should Have Known" Test

Contrary to the licensee's arguments, the Notice and transmittal letter issued to CP&L contained all the necessary elements for assessing a civil penalty required by Section 234b of the Atomic Energy Act and as set forth in 10 CFR 2.205. The NRC staff, in the context of applying the Modified Policy, agrees that the licensee should be provided with sufficient information regarding the NRC staff's finding that the licensee "clearly should have known" of the unqualified equipment in order to provide the licensee with the opportunity to contest that finding. Several steps have been taken in this matter to provide the licensee with the appropriate information. First, the Modified Policy has been made available to the licensee. Second, the NRC inspection report, which has been sent to the licensee, and upon which the enforcement action is based, documents the NRC's findings from which the basis for the "clearly should have known" conclusion can be generally inferred. Third, an enforcement conference was held at which the inspection findings were discussed in depth. Finally, and most importantly, the NRC staff has articulated, in the cover letter which transmitted the Notice, the reasons why it believes the licensee "clearly should have known" of the EQ deficiencies. In that letter, the NRC staff highlighted the significant facts supporting the staff's conclusion. The NRC staff disagrees that the cover letter's explanation must be exhaustive and include all the facts and factors considered. The NRC staff's approach is consistent with the approach taken under the General Enforcement Policy whenever the NRC discusses the determination of the severity level of a violation or application of the escalation and mitigation factors. In such cases, the NRC staff provides the licensee with reasonable notice and a number of meaningful opportunities during the enforcement process to respond.

In the NRC staff's view, the transmittal letter provided the licensee with sufficient information regarding the "clearly should have known" test. Based on the information provided, the licensee should have assessed the items as shown below:

- a. Woodward speed sensors for the High Pressure Coolant Injection (HPCI) system: The licensee clearly should have known of this deficiency because of the information contained in a report provided to the



licensee in October 1985 by General Electric (NEEC-31001-1) which specified that these sensors needed to be replaced.

- b. Whitney Blake wire: The licensee clearly should have known of these deficiencies. The use of qualified wire in equipment that is important to safety is a basic requirement of any environmental qualification program. In this case, the licensee installed this type of wire in valve actuators which were important to safety without verifying the wire's qualification and clearly its qualification should have been checked prior to use.
- c. Standby Gas Treatment control relays and temperature switch leads: As the licensee acknowledged in its response to the Notice, more thorough design interface control or field verification would have identified these problems. The question is whether these components were either so significant or obvious that the licensee should have clearly recognized that they had not been accounted for in the environmental qualification record of Standby Gas Treatment System. The NRC staff recognizes that the vendor, as well as the architect engineer, had extensive involvement in the development of the list of skid mounted subcomponents to be environmentally qualified. However, as discussed in the "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (Attachment 4 to NRC Bulletin 79-01B) reliance simply on a document such as an unsupported vendor certification is not considered adequate verification of qualification.

With respect to the control relays, the NRC staff concludes that these components are obviously necessary for the operation of the system and that should have warranted early consideration in ensuring that the design control process and field verifications supported a complete record of environmental qualification. In the case of these components, it was not a question of inadequate qualification documentation, but the total lack of documentation. Clearly an knowledgeable individual with pertinent information on EQ issues should have discovered this problem because of the importance of the components and the complete lack of a qualification record.

In the case of temperature switch leads, wire is such a basic component of any electrical system that it is clear that an adequate design verification program would have discovered the total lack of documentation for this wire which was used in a portion of the electrical circuitry of the Standby Gas Treatment System. In addition, field verifications clearly should have recognized that the blue wire used on these temperature switches did not match the wire employed in other similar applications and that in turn should have caused the wire's environmental qualification record to be checked.

In neither of these cases is the NRC applying interpretations not known prior to November 30, 1985.

- d. Kulka terminal blocks, Cinch terminal blocks, and various other components in Limitorque operators: As discussed in the Notice and the NRC staff's June 13, 1988 letter regarding CP&L's response



to the Notice, the need to qualify terminal blocks and wire has long been recognized as a necessary element of any EQ program. The NRC staff agrees with CP&L that it has never been required that a licensee perform inspection of every component in every vendor-supplied assembly. However, the NRC does expect that a certain number of assemblies would be inspected as part of the EQ walkdowns. The scope of such inspections would be determined by the quality of qualification record available. Clearly in this case the qualification record for motor operators was not outstanding or complete enough to warrant total reliance upon it without appropriate field verification.

Had such inspections been properly performed and the information in the NRC's generic issuances, such as Information Notice (IN) 83-72, been properly utilized, to determine the types of components of particular concern, CP&L would have clearly found these unqualified components. The position CP&L has taken relative to the information that was provided in IN 83-72 is overly narrow. The fact that the IN specifically cites the discovery of a Buchanan terminal block is not extremely important. The important issue raised by the IN was the general one of unqualified components being found in equipment previously thought to be qualified.

The NRC staff has reviewed the letter Limitorque Corporation issued in response to IN 83-72 and found that the conclusion reached by Limitorque, in the last paragraph of the letter that licensees need take no action with respect to IN 83-72, is not supported by the body of the letter. Not only does the NRC staff reject the letter as the basis for a licensee not pursuing the issues raised in the IN but the staff finds that the letter in its totality supports the NRC staff's "clearly should have known" finding. Consistent with that point, the NRC found that a number of licensees had acted upon the IN after reviewing the Limitorque letter.

The NRC staff was concerned that the Limitorque letter started out apparently intent on describing an isolated problem with terminal blocks at the Midland site and then abruptly went into discussing the generic use of Buchanan 0824 terminal blocks in Westinghouse supplied equipment. The discussion of the Buchanan terminal blocks in Westinghouse equipment is, in the staff's view, significant for both plants with such equipment and those without it. Most importantly, the Midland facility did not have Westinghouse supplied equipment yet Limitorque chose to discuss this issue among a number of seemingly Midland specific issues. It is clear that the Buchanan terminal block information along with other discussion supplied in the letter about the Midland specific problems should have alerted licensees to the potential for environmental qualification deficiencies as the result of work performed not only by the vendor (Limitorque) but that performed by the nuclear steam supply system provider or the architect engineer. Therefore, it is clear that assurances from the vendor may not provide a sufficient basis for concluding that no problem existed with motor operators because changes to the motor operators may have been required or made by other organizations.

The letter then shifts back to problems characterized as Midland specific including a discussion of unidentifiable terminal blocks. That discussion in the Limitorque letter (#9 of the numbered items) does not provide adequate information to allow a knowledgeable reader to fully understand the situation including whether it was truly only a Midland problem. First, given that the Limitorque qualification tests for motor operators used only certain types of terminal blocks, the letter did not provide a basis for assuring customers that these or other types of unidentifiable terminal blocks did not exist in motor operators at other plants. Second, the letter states that the unidentifiable terminal blocks were used in low voltage control circuits and were identified and found "suitable" for their application. The letter does not answer such questions as whether the terminal blocks were ultimately identified to be of the types that had previously been used in testing, whether they were "suitable" in all possible control circuit applications at Midland as well as at other plants, and if not of a type previously tested, how the suitability discussed in the letter equated to the record of qualification required by 10 CFR 50.49.

- e. HPCI Condensate Float Switches: 10 CFR 50.49(b)(2) requires that nonsafety-related electrical equipment whose failure under postulated environmental conditions could prevent satisfactory accomplishment of various safety functions be qualified under those postulated environmental conditions. Alternatively, the licensee can demonstrate by appropriate testing and analysis that the failure of the nonsafety-related electrical equipment would not prevent satisfactory accomplishment of the required safety functions of the HPCI system. In this case, it was clearly indicated on the design drawing that the HPCI float switches were powered from a safety-related power supply and as such, the failure of the float switches clearly could adversely affect the safety-related power supply. The failure of the power supply could have resulted in the HPCI system not performing its intended safety function, yet the licensee had neither qualified the float switches for the postulated environment nor provided an analysis that demonstrated their qualification was not required. Given the explicit nature of 10 CFR 50.49(b)(2) and the fact that the switches were clearly indicated on the drawing as being powered from a safety related power supply, a knowledgeable engineer with pertinent environmental qualification information clearly should have discovered the lack of qualification documentation for the float switches.

With regard to the licensee's contention that, based on various NRC and NRC-sponsored review and audit activities conducted in the period 1980-1985, it had a reasonable basis to believe that the EQ program met applicable regulatory requirements, three points should be made. First, the licensee has not provided specific information that demonstrates that any of the specific equipment discussed in the Notice was accepted as environmentally qualified by the NRC. Second, the examination of program documents, which is largely what was accomplished by the NRC reviews and audits, could not verify proper program implementation. Such verification needed to be done by the licensee. Finally, during the period of 1980-1985, the NRC was periodically providing additional information and guidance in the EQ area to the industry. Such information and guidance clearly could have affected



the validity of earlier NRC acceptance of licensee programs. It was therefore incumbent upon the licensee to ascertain whether that was in fact the case for conclusions reached about its program. In summary, the NRC staff finds that the licensee's reliance on NRC general programmatic reviews to serve as a basis for acceptance of the full EQ program, including implementation, was unreasonable given the general nature of the NRC reviews and the potential that earlier conclusions reached by the NRC may have been invalidated by more current information provided to licensees by the NRC.

It is the NRC staff's conclusion that these examples meet the "clearly should have known" test and demonstrate a Category B problem under the Modified Policy.

2. NRC Evaluation of the use of Vulkene Wire

The NRC concludes that the licensee is correct in its assertion that the example involving the use of Vulkene wire in a Unit 2 motor operator should not be considered for enforcement under the Modified Policy. Given that the unit was shut down at the time of the deadline and the deficiency was corrected prior to operation after the deadline, use of this example is inappropriate. It should be noted that a similar problem was discovered on Unit 1 and that could have been included as an example in the proposed enforcement action.

3. NRC Evaluation of Classification of Violation as Significant

Part III of the Modified Policy is intended to address minor discrepancies and documentation problems in existing EQ files or records. For much of the equipment associated with the stated violations, the licensee did not have EQ files and construction of files for such equipment clearly constitutes more than correction of minor file deficiencies. For the remaining equipment, for which EQ files did exist, either additional testing and/or analysis beyond that permitted by Part III of the Modified Policy was required in order to establish qualification of the licensee, after providing some arguments concerning qualifiability, chose to replace the equipment and never adequately demonstrated qualification. The NRC staff does agree that the licensee was able to subsequently demonstrate qualification of the Unit 1 SGBT control relays. However, the Unit 1 relay qualification was not made until well after identification and qualification was not demonstrated for the Unit 2 relays.

4. NRC Evaluation of CP&L's Position on the Categorization of the Problem

As discussed Paragraph 3 above, the NRC staff concludes that the violations given in the Notice, with the exception of the Vulkene wire, were properly evaluated as significant. Consequently, for these remaining violations, classification as an EQ Category B problem is appropriate.

5. NRC Evaluation of CP&L's Position Regarding Limitorque Motor Operator Wiring Qualification

CP&L references SECY 87-32 in an attempt to argue this point. The recommendation of this NRC staff document was that the NRC staff should be



allowed to exercise discretion and take no enforcement action for certain violations (Limitorque internal wiring). This position was subsequently endorsed by the Commission.

CP&L also references the Memorandum from James Taylor, Director of the Office of Inspection and Enforcement, to Regional Administrators, dated April 10, 1987. This memorandum states: "Violations that involve deficiencies in the qualification of internal wiring for Limitorque motor operated valves should not be processed unless significant programmatic weaknesses exist or inadequate licensee responses or corrective actions are identified."

It should first be noted that CP&L is attempting to claim that this position holds true for the speed sensor on the HPCI turbine (violation 1). This violation is not related to the issue of the internal wiring and, as such, does not warrant discussion here. Given that the NRC staff's position relating to violation 2 has been modified as discussed above the discussion below relates only to the internal wiring issue cited in violation 9.

SECY-87-32 states that discretion will be exercised for certain violations involving unqualified valve motor operator internal wiring. As noted by CP&L on page 6 of Attachment 1 to its July 1, 1988 letter, discretion would be exercised due in large part to extenuating circumstances such as misleading and inadequate vendor-supplied documentation. In this case, as stated in the Notice, the NRC staff concludes that the licensee installed the wire. The licensee in responding to the violation did not dispute that statement, and therefore the use of enforcement discretion as discussed in SECY-87-32 is inappropriate for this particular violation.

### Conclusion

The NRC staff has concluded that violation 2 should be withdrawn. The NRC staff further concludes that the remaining violations constitute an EQ Category B problem and that they "clearly should have been known" to the licensee. No additional information has been provided that would alter the classification of the violation, or the imposition of the civil penalty. The Notice was issued in accordance with the regulatory requirements and the civil penalty was proposed in accordance with the Modified Policy. Therefore, the NRC concludes the imposition of the \$50,000 is proper.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
788 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

July 11, 1989

Docket No. 50-440  
License No. NPF-58  
EA 89-091

The Cleveland Electric Illuminating Company  
ATTN: Mr. Alvin Kaplan, Vice President  
Nuclear Group  
10 Center Road  
Perry, Ohio 44081

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$37,500  
(NRC INSPECTION REPORT NO. 50-440/89011(DRS))

This refers to the inspection conducted during the period March 20 through April 19, 1989, at the Perry Nuclear Power Plant, Unit One. The report of this inspection was sent to you on May 5, 1989. During the inspection, the inspectors reviewed your corrective actions regarding previously identified environmental qualification findings. NRC concerns relative to the inspection findings were discussed with you and your staff during an enforcement conference conducted in the NRC Region III office on May 11, 1989.

The violation described in the enclosed Notice of Violation demonstrates significant weaknesses in your corrective action program with respect to violations identified during our 1987 EQ inspection. The previous inspection findings identified in 1987 involved significant deficiencies in the EQ program and resulted in a \$25,000 civil penalty. As a result of that action, you committed to a review of equipment which required sealing from moisture intrusion and stated that Limitorque actuators contained either Marathon 300 terminal blocks, GE-EB-5 terminal blocks, or butt splices. Additionally, you committed to expansion of the content and application of EQ training to address the inspection findings.

In response to our 1987 findings, your March 1988 response identified two operators containing unqualified terminal blocks which were reworked with acceptable Marathon 300 terminal blocks. The 1989 NRC inspection also identified a further example of an unqualified terminal block in a Limitorque actuator which resulted in a 100% walkdown by your staff. The walkdown resulted in 65 additional findings of wrong terminal blocks installed in Limitorque actuators. Additionally, you identified nine Motor Operated Valves (MOV) which did not contain "T" drains for moisture drainage.

With respect to Target Rock solenoid valves, the inspectors identified loose screws on one enclosure cover and subsequently found that seven of twenty solenoid valve covers had loose screws which might allow moisture intrusion. You attributed the current deficiencies to a lack of detailed torque instructions.

July 11, 1989

The NRC is concerned that serious deficiencies existed in the corrective action program which followed the identification of EQ problems. In addition to your corrective actions being inadequate and their scope very narrow, the quality of certain portions of your response to the civil penalty was, in retrospect, poor. In particular, the portion of the response relating to the terminal block issue was of concern because it failed to explain that the review that was performed as part of your corrective actions was not based on additional inspection and evaluation but rather on a 1983 review which at the time of the civil penalty should have been judged to be of questionable accuracy. In addition, while you accurately stated that the locations of "T" drains on Limitorque operators were reviewed, your staff apparently failed to question why certain Limitorque operators did not have "T" drains. Separate enforcement action for the quality of your response was deemed inappropriate because it appears that the quality of the response is a direct result of the poor corrective actions which are the subject of the enclosed Notice.

To emphasize the need to take thorough corrective actions as well as to emphasize the need to properly communicate the extent of those actions to the NRC, I have been authorized, after consultation with the Director, Office of Enforcement and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Thirty-Seven Thousand Five Hundred Dollars (\$37,500) for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violation described in the enclosed Notice has been classified at a Severity Level III.

The escalation and mitigation factors in the Enforcement Policy were considered. With respect to identification and reporting 25 percent escalation was found appropriate given that the NRC identified two of the three problems. In the case of corrective actions a 50 percent reduction in the base civil penalty was found appropriate because of your extensive actions to correct not only the identified problems but your corrective action program as well. After considering your past performance and the issue of prior notice the NRC staff has concluded that further adjustment of the base civil penalty is not appropriate. A good enforcement history in the area of corrective actions was balanced by recent concerns with your root cause analysis raised in inspections such as the Diagnostic Team Inspection and the prior notice of the issues contained in the Notice that was provided by the earlier civil penalty action. We would have expected that the previous civil penalty action would have generated a more comprehensive analysis of the scope of the underlying EQ problems and, consequently, identified and corrected the violations at issue. Therefore, an overall reduction of the base civil penalty by 25 percent is appropriate.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional



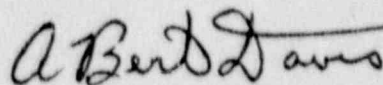
July 11, 1989

actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L., No. 96-511.

Sincerely,



A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Report No. 50-440/89011(DRS)

cc w/enclosure:

F. R. Stead, Director, Nuclear Support Department  
M. D. Lyster, General Manager, Perry Plant  
Operations Department  
R. A. Newkirk, Manager, Licensing and Compliance  
Section  
S. S. Kensicki, Director, Perry Plant Technical  
Department  
Harold W. Kohn, Ohio EPA  
Terry J. Lodge, Esq.  
James W. Harris, State of Ohio  
Roger Suppes, Ohio  
Department of Health  
State of Ohio, Public Utilities Commission

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Cleveland Electric Illuminating Company  
Perry Nuclear Power Plant, Unit 1

Docket No. 50-440  
License No. NPF-58  
EA 89-091

During an NRC inspection conducted during the period March 20 through April 19, 1989, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and the associated civil penalty are set forth below:

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures be established to assure that conditions adverse to quality, such as nonconformances, are identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. The corrective action taken shall be documented and reported to appropriate levels of management.

A Notice of Violation and Proposed Imposition of Civil Penalty (Notice) (EA 87-206) was issued on February 11, 1988 which, in part, identified the following significant conditions adverse to quality:

1. Unqualified terminal blocks installed in Limitorque valve motor operators.
2. Target Rock solenoid operated valves with covers not installed in the environmentally qualified test configuration.
3. Limitorque valve motor operators with "T" drains improperly located to assure proper moisture drainage.

Contrary to the above, the licensee failed to assure that the above significant conditions adverse to quality were promptly identified and corrected in that further examples of these problems were identified that had not been corrected as a result of actions taken in response to the Notice.

This is a Severity Level III violation (Supplement I).

Civil Penalty - \$37,500

Pursuant to the provisions of 10 CFR 2.201, Cleveland Electric Illuminating Company (Licensee) is hereby required to submit a written statement or

explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective actions that have been taken and the results achieved; (4) the corrective actions that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an Order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an Order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such an answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such an answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

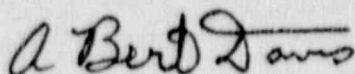
Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of



Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137 and a copy to the NRC Resident Inspector at the Perry Nuclear Power Plant.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 11th day of July 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

March 22, 1989

Docket No. 50-170  
License No. R-84  
EA 88-289

Defense Nuclear Agency  
Armed Forces Radiobiology Research Institute  
ATTN: Colonel George Irving, III, USAF, USC  
Director  
Bethesda, Maryland 20014

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC Inspection Report No. 50-170/88-04)

This refers to the NRC inspection conducted on October 26-28 and November 7, 1988 at your facility in Bethesda, Maryland of activities authorized by License No. R-84. The report of the inspection was forwarded to you on November 28, 1988. During the inspection, several violations of NRC requirements were identified, including multiple examples of some of these violations.

This also refers to the letter, dated December 2, 1988, sent to you by the Area Director of the United States Department of Labor's (DOL) Wage and Hour office in Baltimore, Maryland. In that letter, the Area Director issued a DOL finding that one of your employees was discriminated against at your facility for raising allegations of safety violations. After reviewing the DOL findings, as well as your letter dated January 19, 1989 which provides your basis for this employee action, the NRC supports the DOL finding that a discriminatory act occurred. This discriminatory action constitutes another violation of NRC requirements. On January 5, 1989, an enforcement conference was conducted with you and members of your staff to discuss the violations, their causes, and your corrective actions.

The violations, which are described in the enclosed Notice, represent a programmatic deficiency in the control of operations in that management did not adequately respond to potential safety issues raised by an employee. The violations include: (1) failure to perform written safety evaluations to assure that changes made at the facility, as described in the safety analysis report, did not involve unreviewed safety questions; (2) failure to adhere to procedural requirements on several occasions; (3) failure to ensure that some of your licensed operators satisfactorily completed the required requalification program; and (4) discrimination, in violation of 10 CFR 50.7, against an employee who raised safety concerns.

The NRC is concerned that, although this employee identified a number of technical deficiencies at the facility and informed appropriate levels of

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

management and supervision on September 13, 1988, action was not taken to investigate and correct the deficiencies until the matter was brought to your attention on October 13, 1988. Even then, the deficiencies were not acknowledged by your managers, rather, a discriminatory action was taken against the individual, which could have a "chilling effect" on other employees who might be inclined to raise safety issues to management or the NRC.

These violations demonstrate the need for increased and improved management attention to facility operations to ensure that (1) deficiencies, when they exist, are promptly identified and corrected, and (2) individuals who identify these concerns feel free to raise them to management without fear of reprisal. To emphasize this need, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500) for the violations described in the enclosed notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988) (Enforcement Policy), the violations have been categorized in the aggregate at Severity Level III.

The base civil penalty amount for a Severity Level III violation or problem is \$2,500. The escalation and mitigation factors of the Enforcement Policy were considered and found to be offsetting. The NRC attaches great importance to comprehensive licensee programs for detection, correction, and reporting of problems that may constitute violation of regulatory requirements. In considering the identification and reporting factor, we noted that your programs failed to identify the violations as they occurred, and once identified by an employee, your managers failed to immediately investigate and correct the deficiencies. It was not until after the employee refused to withdraw the allegations that this matter was brought to your attention and you initiated notification of the NRC and an internal investigation by the Inspector General. Even then, the full scope of the deficiencies were not fully understood by your staff and specific corrective actions were not undertaken until after the subsequent NRC inspection identified various items as violations. Therefore, a 50% escalation is applied for this factor. Your corrective actions, though not initially prompt, were found to be extensive and thorough. We believe that those actions outlined in your letters of February 14, and March 1, 1989, provide a good foundation for assuring an effective solution to the facility's recent problems, and therefore, provide a basis for mitigating the proposed civil penalty by 50%. Therefore, on balance, no adjustment to the base civil penalty is appropriate.

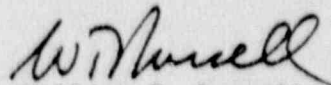
You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.



In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,

  
William T. Russell  
Regional Administrator

Enclosure:  
Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/encl:  
M. L. Moore, Reactor Facility Director  
State of Maryland

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Defense Nuclear Agency  
Armed Forces Radiobiological  
Research Institute

Docket No. 50-170  
License No. R-84  
EA 88-289

During an NRC inspection conducted on October 26-28 and November 7, 1988, violations of NRC requirements were identified. Further, based on the December 2, 1988, findings of the Area Director of United States Department of Labor's Wage and Hour Office the NRC has determined that a violation of its regulations has occurred. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. 10 CFR 50.59, Changes, Tests, and Experiments, states that a holder of a license authorizing operation of a production or utilization facility may make changes in the facility as described in the safety analysis report without prior Commission approval, unless the proposed change involves a change in technical specifications incorporated into the license or an unreviewed safety question. Further, Section 50.59(b) states that the licensee shall maintain records of changes in the facility as described in the safety analysis report. These records must include a written safety evaluation which provides the basis for the determination that the change does not involve an unreviewed safety question as defined in 10 CFR 50.59.

Section 4.11.1 of the AFFRI-TRIGA Safety Analysis Report describes, in part, that the multirange linear channel output is fed to an amplifier which supplies a signal to the strip recorder located in reactor console.

Section 4.11.3 of the AFFRI-TRIGA Safety Analysis Report describes, in part, that high flux safety channels one and two report the reactor power level as measured by three ion chambers placed above the core in the neutron field.

Contrary to the above, prior to November 1988, changes were made to the facility as described in the current revision (1984 Update) to the AFFRI-TRIGA Safety Analysis Report, without performing a written safety evaluation to assure that the changes did not involve an unreviewed safety question, as evidenced by the following examples:

1. In March 1986, a digital voltmeter was installed in the linear channel of the nuclear instrumentation system in lieu of a failed strip chart recorder pen without performing a written safety evaluation; and

2. in April 1988, a nuclear instrumentation Pulse Ion chamber was replaced with a Cerenkov detector without performing a written safety evaluation.
- B. Technical Specification 6.3, Procedures, requires written procedures for certain activities (including the conduct of experiments that could affect the operation and safety of the reactor; checkout startup, standard operations, and securing of the the facility) to assure safe operation of the reactor.
1. Reactor Operations Procedures III, Maintenance Procedures, written pursuant to Technical Specification 6.3.1, requires that malfunctions are annotated in the Malfunction Logbook by the operator who discovered the deficiency.

Contrary to the above,

- a. on July 26, 1988 and August 1, 1988, the Gas Stack Monitor (GSM) malfunctioned, but this malfunction was not recorded in the Malfunction Logbook; and
  - b. on June 3, 1987, the GSM pump was turned off due to an apparent malfunction (smell of smoke), but this condition was not recorded in the Malfunction Logbook.
2. Reactor Operation Procedure I, Conduct of Experiments, written pursuant to Technical Specification 6.3, requires that a Reactor Use Request (RUR) be completed prior to conduct of an experiment prior to irradiation.

Contrary to the above, an experiment was conducted on October 8, 1985, and an RUR was not completed prior to irradiation.

3. Reactor Operations Procedure VIII, Reactor Operations, Tabs I and K, written pursuant to Technical Specification 6.3, requires that an hourly report of the GSM be provided in the historical release data log.

Contrary to the above, as of November 7, 1988, no hourly report of the GSM for August 1, 1988 was provided in the GSM historical log.

4. Tab A of Procedure VIII and Tab A of Procedure I, written pursuant to Technical Specification 6.3, require that the Reactor Facility Director review the Operator's log and Activated Materials Log.

Contrary to the above, as of November 7, 1988, the Operator's Log (No. 78) (March 10, 1987 - June 17, 1987) and Activated Material Log had not been reviewed by the Reactor Facility Director.



- C. 10 CFR 50.54(h)(i-1) requires that the facility licensee have in effect an operator requalification program that meets, as a minimum, the requirements of 10 CFR 55.59(c).

10 CFR 55.59(c) and (a)(1) require each individual licensed operator to successfully complete a requalification program, as developed by the facility and approved by the NRC. This program shall be conducted for a continuous period not to exceed 24 months in duration.

Contrary to the above, during the continuous operator requalification cycle, between 1986 and 1988, three licensed operators did not participate in some of the preplanned lecture programs, such as the lecture on NRC regulations, Technical Specifications, and Reactor Operating Characteristics.

- D. 10 CFR 50.7 prohibits discrimination by a Commission licensee, or a contractor or subcontractor of a licensee, against an employee for engaging in certain protected activities. Discrimination includes discharge and other actions that relate to compensation, terms, conditions, and privileges of employment. The protected activities are established in Section 210 of the Energy Reorganization Act, and in general, are related to the administration or enforcement of a requirement imposed under the Atomic Energy Act or the Energy Reorganization Act.

Contrary to the above, in October 1988, Angela Munno, a reactor operator for the Defense Nuclear Agency, was discriminated against by the licensee in that she was reassigned to duties outside the reactor area for engaging in protected activities consisting of her raising allegations of safety violations. These allegations were raised to facility management and were related to possible technical specification violations.

These violations in the aggregate represent a Severity Level III problem. (Supplements I and VII)

Civil Penalty - \$2,500

Pursuant to the provisions of 10 CFR 2.201, Defense Nuclear Agency is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

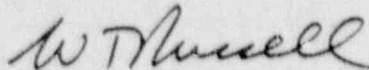
Within the same time as provided for the response required under 10 CFR 2.201, the licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may:

- (1) deny the violation(s) listed in this Notice in whole or in part,
- (2) demonstrate extenuating circumstances, (3) show error in this Notice, or
- (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the six factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1988), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, by may incorporate parts of the 10 CFR 2.201 by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted or mitigated, may be collected by civil action pursuant to Section 234C of the Act, 42 U.S.C. 2282c.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 22<sup>nd</sup> day of March 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 22 1989

Docket No. 50-170  
License No. R-84  
EA 88-289

Defense Nuclear Agency  
Armed Forces Radiobiology  
Research Institute  
ATTN: Colonel George Irving, III  
USAF, BSC  
Director  
Bethesda, Maryland 20814-5145

Gentlemen:

Subject: ORDER IMPOSING A CIVIL MONETARY PENALTY

This letter refers to your two letters dated May 4, 1989 and letter dated June 29, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by letter dated March 22, 1989. Our letter and Notice described violations identified during NRC Inspection No. 88-01, conducted in October and November 1988, as well as during the NRC review of the findings made by the Area Director of the United States Department of Labor (DOL) Wage and Hour Office in Baltimore, Maryland concerning a complaint filed with DOL by a former employee alleging discrimination for raising safety concerns.

The violations were classified in the aggregate as a Severity Level III problem and a civil penalty in the amount of \$2,500 was proposed to emphasize the need for increased and improved management attention to facility operations to ensure that (1) deficiencies, when they exist, are promptly identified and corrected, and (2) individuals who identify these concerns feel free to raise them to management without fear of reprisal.

In your response to the Notice, you admit the occurrence of two of the violations (Violations A and C), admit two of the five examples of a third violation (Violation B.3 and B.4), deny the remaining three examples of that violation (Violation B.1.a, B.1.b, and B.2), and deny one violation (Violation D). Further, you request that the civil penalty not be imposed, for the reasons described in your response and summarized in the Appendix to the enclosed Order Imposing a Civil Monetary Penalty. Your June 20, 1989 letter withdrew your arguments regarding the constitutionality of the civil penalty proposed by the NRC. After careful consideration of your response, we have concluded, for the reasons given in the Appendix, that the violations did occur as stated in the Notice and a sufficient basis was not provided for mitigation of the amount of the civil penalty. Accordingly, we hereby serve the enclosed Order on the Defense Nuclear Agency imposing a civil monetary penalty in the amount of Two Thousand Five Hundred Dollars. We will review the effectiveness of your corrective actions during a subsequent inspection.

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

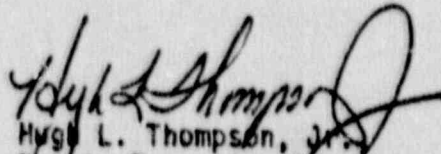


Defense Nuclear Agency

- 2 -

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

Sincerely,



Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards  
and Operations Support

Enclosures:

1. Order Imposing Civil Monetary Penalty
2. Appendix - Evaluation and Conclusion

cc w/encls:

M. L. Moore, Reactor Facility Director  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
State of Maryland (2)



the licensee had violated, and the amount of the civil penalty proposed for the violations. Two responses, dated May 4, 1989, to the Notice of Violation and Proposed Imposition of Civil Penalty, were received from the licensee denying one violation, denying portions of another violation, and requesting mitigation of the civil penalty.

III

Upon consideration of the licensee's response and the statement of facts, explanation, and argument for mitigation contained therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support has determined that the violations occurred as stated and that the penalty proposed for the violations designated in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500) within thirty days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and Mailed to the U.S. Nuclear Regulatory Commission,  
ATTN: Document Control Desk, Washington, D.C. 20555.



V

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Attention: Document Control Desk, Washington, D.C., 20555 with a copy to the Regional Administrator, Region I.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issue to be considered at such hearing shall be: (a) whether the licensee was in violation of the Commission's requirements as set forth in Violation B.1.a, B.1.b, B.2, and D of the Notice of Violation and Proposed Imposition of Civil Penalty referenced in Section II above, and (b) whether, on the basis of the admitted and contested violations, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION



Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards  
and Operations Support

Dated at Rockville, Maryland  
this 22<sup>nd</sup> day of August 1989

## APPENDIX

### EVALUATION AND CONCLUSIONS

On March 22, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations identified during a routine NRC inspection and as a result of the NRC's review of the findings of the Area Director of the United States Department of Labor's (DOL) Wage & Hour Office in Baltimore, Maryland. The licensee responded to the Notice in two letters, dated May 4, 1988, and admits two of the violations in total (A and C); admits two of the five examples of one violation (B.3. and B.4.); denies three examples of that violation (B.1.a., B.1.b. and B.2); and denies one violation in total (D). The licensee also requests that the civil penalty not be imposed. The NRC's evaluation and conclusion regarding the licensee's response are as follows:

#### I. Restatement of Contested Violations

B. Technical Specification 6.3, Procedures, requires written procedures for certain activities (including the conduct of experiments that could affect the operation and safety of the reactor; checkout startup, standard operations, and securing of the facility) to assure safe operation of the reactor.

1. Reactor Operations Procedures III, Maintenance Procedures, written pursuant to Technical Specification 6.3.1, requires that malfunctions are annotated in the Malfunction Logbook by the operator who discovered the deficiency.

Contrary to the above,

- a. on July 26, 1988 and August 1, 1988, the Gas Stack Monitor (GSM) malfunctioned, but this malfunction was not recorded in the Malfunction Logbook; and
- b. on June 3, 1987, the GSM pump was turned off due to an apparent malfunction (smell of smoke), but this condition was not recorded in the Malfunction Logbook.

2. Reactor Operation Procedure 1, Conduct of Experiments, written pursuant to Technical Specification 6.3, requires that a Reactor Use Request (RUR) be completed prior to conduct of an experiment prior to irradiation.

Contrary to the above, an experiment was conducted on October 8, 1985, and an RUR was not completed prior to irradiation.

- D. 10 CFR 50.7 prohibits discrimination by a Commission licensee, or a contractor or subcontractor of a licensee, against an employee for engaging in certain protected activities. Discrimination includes discharge and other actions that relate to compensation, terms, conditions, and privileges of employment. The protected activities are established in Section 210 of the Energy Reorganization Act, and in general, are related to the administration or enforcement of a requirement imposed under the Atomic Energy Act or the Energy Reorganization Act.

Contrary to the above, in October 1988, Angela Munno, a reactor operator for the Defense Nuclear Agency, was discriminated against by the licensee in that she was reassigned to duties outside the reactor area for engaging in protected activities consisting of her raising allegations of safety violations. These allegations were raised to facility management and were related to possible technical specification violations.

## II. Summary of Licensee Response and NRC Evaluation

### A. Concerning Licensee's Denial of Example B.1.a

#### Summary of Licensee Response

In its response, the licensee asserts that no violation occurred on July 26, 1988 because the Reactor Logbook entries for that date contain no indication of a Gas Stack Monitor (GSM) malfunction and that normal GSM operation for July 26, 1988 was confirmed by review of the Daily Operational Startup and Shutdown Checklists. The licensee also contends that abnormal readings and a data dump caused by an electrical storm on the previous day (July 25, 1988), and which was discovered during testing on July 26, 1988, did not constitute a malfunction of the GSM requiring a recording in the Malfunction Log.

The licensee also states that no violation occurred on August 1, 1988 because entries in the Reactor Operations Logbook for August 1, 1988 show no indication of a GSM malfunction and that only the GSM Printer had malfunctioned on August 1, 1988 resulting in the inability of the operators to print the one hour historical report. The licensee contends that the notation on the relevant line of the Daily Operational Shutdown Checklist signifying "N/A" meant "not available" and that the unit otherwise properly performed on August 2, 1988 and thus, there was no malfunction on August 1, 1988 requiring a recording in the Malfunction Log.

#### NRC Evaluation

The absence of documentation of a malfunction of the GSM in the Reactor Logbook for July 26, or August 1, 1988 is insufficient to establish that the violation did not occur as stated. The NRC has concluded that a malfunction occurred based on abnormal readings in the GSM Historical Logbook which indicate an electrical upset and data dump on July 25, 1988 which was discovered on July 26, 1988. Although the data dump may have occurred as a result of the outside effect caused by the power loss from a storm, Reactor Operations Procedure III, para. 3, does not distinguish between malfunctions caused by external and internal conditions. Thus, a malfunction within the meaning of the procedure occurred on July 26, 1988 which



required recording in the Malfunction Logbook.

With respect to the August 1, 1988 malfunction, the NRC considers the GSM printer to be an integral part of the GSM system and a printer malfunction is within the meaning of Reactor Operations Procedure III. Furthermore, others of the licensee's staff apparently considered the printer failure to be a malfunction within the meaning of the referenced procedure in that another operator recorded the malfunction the following day on August 2, 1988.

B. Concerning Licensee's Denial of Example B.1.b.

Summary of Licensee Response

The licensee states that the GSM was not turned off on June 3, 1987 because of a malfunction (smell of smoke) which would require a recording in the Malfunction Logbook. The licensee states that the GSM pump was turned off only because the pump noise level interfered with the conduct of a 9:00 a.m. meeting on the reactor deck and was restarted after the meeting. During the time the pump was shut down, no reactor runs were conducted.

NRC Evaluation

On June 3, 1987 AFRRRI Reactor Facilities Director told the two NRC inspectors that the reason the GSM was shut down earlier on that date was because of a concern over the smell of smoke. Therefore, the NRC has concluded that this violation occurred as stated in the Notice.

C. Concerning Licensee's Denial of Example B.2.

Summary of Licensee Response

The licensee asserts that the reactor run, performed on October 8, 1988 was not an "experiment" requiring a Reactor Use Request (RUR). The licensee states the reactor run was one of a series made that day to modify a radiation environment that had been previously achieved but as to which precise core configurations were not known. Thus, the licensee maintains the reactor run constituted an example of a reactor test authorized by Technical Specification 6.4.2c, "Reactor Parameters Authorization," rather than an "experiment" requiring an RUR.

NRC Evaluation

Technical Specification 6.4.2c, "Reactor Parameters Authorization," authorizes routine measurement of reactor parameters, routine core measurements and other instrumentation and calibration checks to verify reactor outputs. In this instance, the reactor run involved the insertion of test cells into the reactor with no intention or purpose of obtaining routine reactor parameters. Instead, the reactor

run was conducted in an effort to identify specific core configurations through which a slow neutron flux to produce a radiation environment could be produced that would kill the test cells. The NRC concludes that this reactor run can only be interpreted as an experiment requiring an RUR and is not a reactor test authorized by Technical specification 6.4.2c.

D. Concerning Licensee's Denial of Violation D

Summary of Licensee Response

The licensee denies that it discriminated against an employee for engaging in protected activities (raising safety concerns) by reassigning the employee to duties outside the reactor area. The licensee asserts that upon initial receipt of the employee's allegations, an aggressive investigation of the concerns, which included attempts to obtain more specific information from the employee, was initiated and these attempts to gain further information led the employee to believe that she was being discriminated against.

The licensee states that the basis of the violation (Department of Labor investigation findings) was narrowly focused on the month prior to reassignment of the employee (September-October 1988) and failed to properly account for the actual reasons in the larger context for the employee's temporary reassignment which included a sequence of events involving the employee beginning in April 1988. The licensee maintains the employee's transfer from her duties as a Reactor Operator was not a consequence of her engaging in protected activity. Rather, it was the result of the stressful environment in the Operations Department created by deteriorating co-worker and supervisor-subordinate relationships between the employee and the remainder of the staff which had the potential to lead to unsafe reactor operations.

Furthermore, the licensee states that the employee's temporary removal was not proscribed within the definition of "discrimination" in the regulation since it had no effect on her "compensation, terms, conditions and privileges of employment." The licensee concludes that the reason for the reassignment action (reactor operational safety) fits an example of a "nonprohibited consideration" permitted by 10 CFR 50.7(d).

NRC Evaluation

Notwithstanding the departmental stress and deteriorated relationships that may have existed within the Operations Department as a result of personnel conflicts between licensee management, staff, and the employee in question, based on the record established by the Area Director of DOL, the NRC concludes that the employee would not have been reassigned on October 13, 1988 had she not raised safety concerns relative to violations of requirements within the Operations Department. Further, the NRC agrees with the conclusions of the Department of

Labor investigation that if the employee had recanted the allegations made on her performance appraisal, she would not have been removed and the subsequent management actions taken to support her removal would not have taken place. The Department of Labor Area Director determined that while the alleged personnel problems with the employee were said to be the basis for her removal, it was significant that the problems existed since April 1988, yet there was no management effort to formally pursue or consider her removal until immediately after the employee declined to recant her concerns in October 1988. He also found that the perceived detrimental impact on safe reactor operations as a result of the negative staff/employee relationship was only formally surfaced "after the fact" by management in an effort to support the removal.

In sum, the NRC does not dispute that there were tensions within the Operations Department between the employee and the remainder of the staff. However, the protracted period of time in which these personnel problems were said to exist during which time there was no formal management action against the employee, coupled with the employee's immediate transfer after the concerns were raised and management's "after the fact" attempt to justify the transfer, supports the conclusion that the employee was removed as a direct result of raising safety concerns. Such actions clearly carry a "chilling effect" on other employees who in the future may wish to raise safety concerns.

With respect to the assertion that the temporary removal of the employee was not discriminatory because it had no adverse affect on the "compensation, terms, conditions and privileges of employment," the NRC notes that the employee was employed as a reactor operator and to be removed to duties outside of the reactor area is clearly adverse to the terms and conditions for which she was hired. The removal of an individual from a skilled position to general duties unrelated to the individual's expertise is detrimental to her potential when compared to that of her peers. Further, because the NRC has concluded that the removal occurred because the employee was engaged in protected activities, rather than for reactor operational safety reasons, the removal action does not constitute a "nonprohibited consideration" within the meaning of 10 CFR 50.7(d).

E. Concerning Licensee's Position that the Civil Penalty Should Not Be Imposed

Summary of Licensee Response

The licensee asserted in its May 4, 1989 response that a civil penalty should not be imposed since there are constitutional reasons which prohibit imposition of a civil penalty on AFRRRI as another agency of the Federal Government. Further, the licensee states that the civil penalty may not be payable since there is a question under federal appropriations law as to whether an agency's appropriations are available to pay the penalty. The licensee implies that there has been some discrepancies in holdings by the Comptroller General in connection with this issue and therefore the disbursing or certifying



official should obtain an advance decision from the Comptroller General under 31 U.S.C. § 3529. The licensee states that action will be taken to obtain such a decision. Lastly, the licensee asserts that, even as to the violations admitted, the problems actually present were not of environmental or safety significance and do not warrant imposition of a fine.

#### NRC Evaluation

The licensee withdrew its argument regarding the constitutionality of the imposition of civil penalties by the NRC on another agency of the Federal Government in a letter dated June 29, 1989. Regarding the question raised by the licensee as to whether its appropriations are available to pay the civil penalty, this provides no basis for the NRC not to follow the process established by the Atomic Energy Act (Section 234) and the Commission's regulations to issue an Order Imposing a Civil Monetary Penalty for violations by any person, defined to include other federal agencies, of applicable requirements. In addition, it should be noted that other agencies of the federal government licensed by the NRC have paid civil penalties for violations of NRC requirements. See, e. g., letter from Gary D. Vest, Deputy Assistant Secretary of the Air Force (Environment, Safety and Occupational Health) to Hugh L. Thompson, Jr., Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, NRC, dated June 30, 1989.

The NRC does not accept the licensee's assertion that the violations are not of environmental or safety significance. The violations represent weaknesses in the general conduct of facility operation. Although each of these violations, when reviewed individually, may not be significant, when reviewed in total, they reflect a breakdown in the licensee's program to control the conduct of operations. The NRC relies on its licensees to self-identify and correct potential problems before they can become a serious problem. The failure of the licensee to identify and correct the problems that led to the violations, and to ensure that individuals who identify safety concerns feel free to raise them to management without fear or reprisal, is a significant safety concern.

#### III. NRC Conclusion

For the reasons set forth above, the NRC has concluded that the violations occurred as stated in the Notice and mitigation or remission of the civil penalty is not warranted. Therefore, a civil penalty in the amount of \$2,500 should be imposed.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

MAY 19 1989

Docket Nos. 50-413 and 50-414  
License Nos. NPF-35 and NPF-52  
EA 89-46

Duke Power Company  
ATTN: Mr. H. B. Tucker, Vice President  
Nuclear Production Department  
422 South Church Street  
Charlotte, North Carolina 28242

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC INSPECTION REPORT NOS. 50-413/88-38 AND 50-414/88-38)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted by W. T. Orders and M. S. Lesser on November 27, 1988 - February 4, 1989, at the Catawba Nuclear Station. The inspection included a review of the circumstances surrounding the inoperability of the Unit 2 Containment Air Return and Hydrogen Skimmer System (VX) fan discharge damper 2A. The report documenting this inspection was sent to you by letter dated March 2, 1989. As a result of this inspection, two significant failures to comply with NRC regulatory requirements were identified. Accordingly, NRC concerns relative to the inspection findings were discussed in an Enforcement Conference held on March 17, 1989. The letter summarizing this conference was sent to you on March 31, 1989.

Violation A described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involved the inoperability of one train of the VX system due to an electrical wiring error associated with the January 1988 installation of a station modification. Two wires were incorrectly labeled during fabrication, and this condition was not identified at that time because station modification procedures did not require an independent verification of this process. You had the opportunity to discover the installation error during post-modification testing, but failed to do so because of the inadequate scope of the test performed. The routine quarterly performance test did not provide a complete functional check of the modification as the safeguards relays which automatically control the dampers during an accident were not tested. The wiring error in conjunction with the test circuitry used to cycle the damper created a "sneak path" when the test switch was employed. This resulted in an erroneous damper response that would not take place when the test switch is in the "normal" position. Consequently, train A of the VX system would not have performed its intended safety function while the reactor was operated from February 19, to April 1, 1988.

Once the wiring error was discovered during performance of the auxiliary safeguards test on March 31, 1988, immediate action was taken to return the VX system to operable status. After the wires were correctly terminated, the same inadequate



MAY 19 1989

test procedure that failed to identify the deficiency during the January 1988 post-modification test was used to demonstrate damper operability. Apparently, it was not realized that since this test was insufficient to detect the original error, it was also insufficient to verify that the error had been corrected. It was not until April 5, 1988, that the complete control circuit was proved operable for an unrelated reason when the previously unfinished auxiliary safeguards test was satisfactorily rerun.

Violation B concerns the excessive amount of time that it took for you to report the event. After discovery on March 31, 1988, an LER was not issued until January 27, 1989. Contributing to the reporting delay was an incorrect operability determination performed by Design Engineering on April 15, 1988. The incorrect conclusion was based on an evaluation of a functional diagram and not an indepth review of the as-built wiring prints. This issue continued to receive attention from the various groups involved with the modification through September 14, 1988, when Design Engineering agreed preliminarily with the Performance groups' inoperability assessment. A review of wiring diagrams and a point-by-point wiring check was undertaken from September through December 19, 1988, at which time it was determined to be a reportable condition.

To emphasize the need for adequate post-modification testing and prompt reporting of inoperable safety systems, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Seventy-Five Thousand Dollars (\$75,000) for Violation A described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), (Enforcement Policy), the violations have each been categorized as a separate Severity Level III violation. The base value of a civil penalty for a Severity Level III violation is \$50,000.

The escalation and mitigation factors in the Enforcement Policy were considered and the base civil penalty for Violation A has been increased by 50 percent because your initial corrective actions were narrowly focused on correcting the improperly installed electrical wiring and failed to address the broader problem of inadequate post modification testing. Though you subsequently identified the deficiency on March 31, 1988, no mitigation is being applied because your post-maintenance testing program should have identified it prior to reactor startup from the refueling outage. No mitigation or escalation was deemed appropriate for past performance as you have an overall SALP Category 2 rating, and have had no similar problems in the past two years. No other factors were determined to be applicable and a \$75,000 civil penalty is assessed for this violation.

Violation B has been categorized as a Severity Level III violation for your failure to report the degraded safety system for ten months after discovery of the condition. We are particularly concerned that after you had correctly determined that the system had been inoperable on September 14, 1988, it took an additional four months before the LER was issued. No escalation was applied for identification and reporting, as that is the point of this violation.



MAY 19 1989

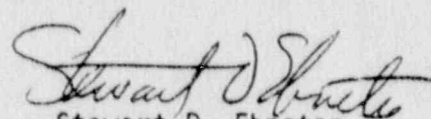
Consideration was given to escalating the penalty for duration because you knew in September that the system had been inoperable. This was not done so here because a report was eventually made without NRC involvement and the duration was considered in determining the severity level. A review of your enforcement history for the past two years identified no previous violations in the area of reporting. Therefore, based on your good prior performance, a 100 percent mitigation factor has been applied and no civil penalty will be assessed for this violation.

You are required to respond to this letter and the enclosed Notice and should follow the instructions specified therein when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. In particular, please address those actions taken to assure that: (1) operability determinations are performed in a timely manner, and (2) once a safety system or component is declared inoperable, appropriate notifications are conducted. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Public Law No. 96-511.

Sincerely,

  
Stewart D. Ebner  
Regional Administrator

Enclosure:  
Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/enc1:  
T. B. Owen, Station Manager  
State of South Carolina

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Duke Power Company  
Catawba Nuclear Station  
Unit 2

Docket No. 50-414  
License No. NPF-52  
EA 89-46

During the Nuclear Regulatory Commission (NRC) inspection conducted on November 27, 1988 - February 4, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

A. Violation Assessed A Civil Penalty

Technical Specification 3.6.5.6 requires in modes 1 through 4 that two independent Containment Air Return and Hydrogen Skimmer Systems be OPERABLE. With one Containment Air Return and Hydrogen Skimmer System (VX) inoperable, the inoperable system shall be restored to OPERABLE status within 2 hours or the unit is to be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

Contrary to the above, during a period of 42 days from February 19, 1988 to April 1, 1988, Unit 2 operated in modes 1 through 4 with one of the two independent Containment Air Return and Hydrogen Skimmer Systems (VX) inoperable. During this period, both trains of VX were required to be operable.

This is a Severity Level III violation (Supplement I).

Civil Penalty - \$75,000.

B. Violation Not Assessed A Civil Penalty

10 CFR 50.73(a)(2) requires the submittal of a Licensee Event Report within 30 days after discovery of any operation or condition prohibited by the plant's Technical Specifications.

Contrary to the above, on September 14, 1988, the licensee determined that Catawba Unit 2 had previously operated for 42 days in a condition prohibited by the plant's Technical Specifications because train A of the Containment Air Return and Hydrogen Skimmer System had been inoperable and a Licensee Event Report was not submitted until January 27, 1989.

This is a Severity Level III violation (Supplement I).

Pursuant to the provisions of 10 CFR 2.201, Duke Power Company (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of



the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) admission or denial of the violations, (2) the reasons for the violations if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2202, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the six factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1988), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay the penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the the Act, 42 U.S.C 2282.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement,

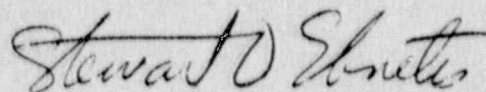


Notice of Violation

- 3 -

U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region II and a copy to the NRC Senior Resident Inspector, Catawba Nuclear Plant.

FOR THE NUCLEAR REGULATORY COMMISSION



Stewart D. Ebnetter  
Regional Administrator

Dated at Atlanta, Georgia  
this ~~19th~~ day of May 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 31 1989

Docket Nos. 50-413 and 50-414  
License Nos. NPF-35 and NPF-52  
EA 89-46

Duke Power Company  
ATTN: Mr. H. B. Tucker, Vice President  
Nuclear Production Department  
422 South Church Street  
Charlotte, North Carolina

Gentlemen:

SUBJECT: ORDER IMPOSING A CIVIL MONETARY PENALTY - \$75,000

This refers to your letter dated June 16, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by our letter dated May 19, 1989, related to NRC Inspection Report Nos. 50-413/88-38 and 50-414/88-38 sent to you by our letter dated March 2, 1989. Our letter and Notice described the inoperability of one train of the Containment Air Return and Hydrogen Skimmer System due to an electrical wiring error associated with the January 1988 installation of a station modification (Violation A) and the failure to report the degraded safety system for ten months after its discovery (Violation B). To emphasize the need for adequate post modification testing and prompt reporting of inoperable safety systems, the May enforcement action was issued which included a proposed civil penalty of Seventy-Five Thousand Dollars (\$75,000) for Violation A.

The NRC has reviewed your response in which you admitted Violations A and B. You stated that you do not believe Violation A warranted escalation and requested the civil penalty be partially mitigated. In addition, you also requested that Violation B be reduced to a Severity Level IV violation.

After careful consideration of your response, we have concluded for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty, that there is insufficient cause to mitigate the Civil Penalty for Violation A or to reduce the severity level of Violation B. Accordingly, we hereby serve the enclosed Order on Duke Power Company imposing a civil monetary penalty in the amount of Seventy-Five Thousand Dollars (\$75,000). We will review the effectiveness of your corrective actions during a subsequent inspection.

Duke Power Company

- 2 -

In accordance with Section 2.790 of the NRC's "Rule of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

Sincerely,



Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards  
and Operations Support

Enclosure:  
Order w/Appendix

cc w/encl:  
T. B. Owen, Station Manager  
Senior Resident Inspector - Catawba  
State of South Carolina



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
Duke Power Company  
(Catawba Units 1 and 2)

) Docket Nos. 50-413 and 50-414  
) License Nos. NPF-35 and NPF-52  
) EA 89-46

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Duke Power Company, Charlotte, North Carolina (licensee) is the holder of Operating License Nos. NPF-35 and NPF-52 (licenses) issued by the Nuclear Regulatory Commission (Commission or NRC) on January 17, 1985 and May 15, 1986, respectively. The licenses authorize the licensee to operate Catawba Units 1 and 2 in accordance with the conditions specified therein.

II

NRC inspection of the licensee's activities under the license was conducted on November 27, 1988 - February 4, 1989. The results of this inspection indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated May 19, 1989. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for Violation A. The licensee responded to the Notice by letter dated June 16, 1989. In its response, the licensee admitted the violations but contended that Violation A did not warrant escalation of the proposed civil penalty and requested that the civil penalty be partially mitigated. In addition, the licensee asserted that Violation B should be categorized as a Severity Level IV instead of a Severity Level III violation.

III

After consideration of the licensee's response and the statement of fact, explanation, and argument for partial mitigation of Violation A and recategorization of Violation B contained therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support (DEDS) has determined, as set forth in the Appendix to this Order, that the penalty proposed for Violation A designated in the Notice of Violation and Proposed Imposition of the Civil Penalty should be imposed, and that Violation B was properly categorized.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Seventy-Five Thousand Dollars (\$75,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

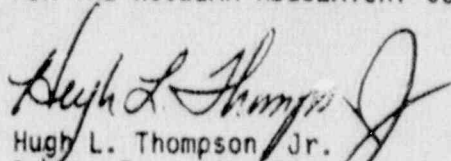
V

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with copies to the Assistant General Counsel for Hearings and Enforcement, at the same address, the Regional Administrator, Region II, 101 Marietta Street, N.W., Atlanta, Georgia 30323, and a copy to the NRC Resident Inspector at Catawba.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions to this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issues to be considered at such hearing shall be whether on the basis of Violation A set forth in the Notice of Violation and Proposed Imposition of Civil Penalty referenced in Section II above, which the licensee has admitted, the Order to pay a Seventy-Five Thousand Dollar civil penalty should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION



Hugh L. Thompson Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards  
and Operations Support

Dated at Rockville, Maryland  
this 31<sup>st</sup> day of August 1989



## APPENDIX

### EVALUATIONS AND CONCLUSIONS

On May 19, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty was issued for violations identified during a routine NRC inspection. The Notice cited two Severity Level III violations, and proposed a civil penalty for Violation A. Duke Power Company (DPC) responded to the Notice on June 16, 1989. In its response, the licensee requested mitigation of the proposed Civil Penalty and a reduction in severity level of Violation B. The NRC's evaluation and conclusions regarding DPC's arguments are as follows:

#### RESTATEMENT OF VIOLATION

##### Violation A

Technical Specification 3.6.5.6 requires in Modes 1 through 4 that two independent Containment Air Return and Hydrogen Skimmer Systems (VX) be OPERABLE. With one Containment Air Return and Hydrogen Skimmer System (VX) inoperable, the inoperable system shall be restored to OPERABLE status within 72 hours or the unit is to be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

Contrary to the above, during a period of 42 days from February 19, 1988 to April 1, 1988, Unit 2 operated in Modes 1 through 4 with one of the two independent Containment Air Return and Hydrogen Skimmer Systems (VX) inoperable. During this period, both trains of VX were required to be operable.

Proposed Civil Penalty - \$75,000

##### Summary of Licensee's Response:

Duke Power Company admits the violation occurred. However, the licensee maintains that escalation of the base civil penalty to \$75,000 was not warranted and proposes that the civil penalty be mitigated to \$25,000.

The licensee's response addresses the following three mitigation factors and other reasons for mitigation as summarized below.

##### Identification and Reporting

The licensee maintains that the NRC characterization that the post modification test should have been capable of detecting this unique problem is in error. The licensee contends that their Post Modification Testing and Independent Verification Programs work together in detecting problems, and that the performance test (the VX test), used as the post modification test in this situation, worked properly in evaluating VX operability. The impact of the "sneak-path" established by the wiring error was not fully understood for the VX performance test until lengthy and detailed tests were performed recreating the original miswired condition.

Corrective Action to Prevent Recurrence

The Notice stated, "the base penalty for Violation A was increased by 50 percent because initial corrective actions were narrowly focused on correcting the improperly installed electrical wiring and failed to address the broader problem of inadequate PMT."

The licensee's response states that the 50 percent escalation of the civil penalty was inappropriate for two reasons:

- A major effort was required to understand the reason for the failure of the VX Periodic Test to catch the unique error. The comprehensive aspect of that review and the revision to LER 414/88-33 that reported those findings showed initiative on their part to ensure this situation would not recur. The issues of licensee initiative and comprehensive action are both factors for mitigation in this category.
- The improvements made to the PMT process through the TOPFORM program have come about subsequent to this modification and as a result no other similar violations have occurred. Further, the additional "lessons learned" approach taken shows "extensive" corrective action in PMT to prevent recurrence.

The licensee contends that rather than a 50 percent escalation of the base penalty, a 50 percent reduction should be applied since the actions taken in regard to PMT and those that are ongoing have been complete and timely in preventing recurrence.

Past Performance

The licensee's reply contends that with no similar problems in the past two years and an overall SALP 2 rating, which is clearly "adequate," at least a 50 percent reduction in the base civil penalty should be applied.

Other Reasons for Mitigating the Civil Penalty

The licensee's response argues that the issue of safety significance must play a part in establishing a final level of the civil penalty. The licensee's response states that in the Enforcement Conference it was shown through analysis that equipment qualification profiles were not exceeded and the damper could be reopened within 30 minutes as demonstrated in a drill. The licensee also argues that the "B" train of VX being out of service for a total of 7 hours during the 42 days that "A" train was unknowingly inoperable was relatively insignificant in that the probability of a LOCA event having a "one train response" from the VX system was low.



NRC's Evaluation of Licensee's ResponseIdentification and Reporting

The Licensee's Post Modification Testing and Independent Verification Programs failed to detect a significant VX system operability problem due to a control circuit wiring error prior to placing the reactor in a mode that required the VX system to be operable. Regardless of the failure of the Independent Verification Program to detect the wiring error during the design modification process, an adequate post modification test should have identified the error. The performance test chosen by the licensee as the post modification test was inadequate for this situation because it did not verify operability of that portion of the VX control circuit that would be activated by the Solid State Protection System (SSPS) during an actual emergency, even though the modification was to the control circuit. The error was discovered during reactor operation by performance of the SSPS logic test, which verifies the slave relay actuation of the VX control circuit. Clearly, the licensee's post modification test should have identified the installation error prior to reactor startup, and the NRC, therefore, does not consider this factor as adequate to justify mitigation.

Corrective Action to Prevent Recurrence

In evaluating this event in terms of corrective actions, it was noted that immediate corrective actions on April 1, 1988, were to correct the wiring error, retest the damper in accordance with the original post modification test and declare the system operable. Although the VX damper inoperability and wiring error had been detected by a Technical Specification (TS) required SSPS surveillance test, once the wiring error had been corrected, this test was not repeated prior to declaring the system operable. Instead the same test which had originally failed to detect the wiring error in January 1988 was used to determine operability. Not only did the licensee rely on a test (VX functional) that had already proven itself inadequate, but the system was returned to service without performing the failed TS required SSPS surveillance test that initially identified the deficiency. This, in terms of corrective action, is both unacceptable and narrow in focus.

Substantial changes have subsequently been made in the Post-Modification Test Program and full implementation is in progress. As presented in Duke's meeting with the NRC at Region II on August 15, 1989, the changes include focusing responsibility on the "system expert," verifying that the design basis has not been compromised, and verifying that the system is functionally operable after modification. The new procedures were first used in April, 1989 for S/G PORV modification, but full development is still in progress, including additional training of system experts. However, while these are extensive and appropriate corrective actions, these actions were not sufficiently timely to warrant mitigation. The licensee's June 16, 1989 response to this enforcement action continued to take the narrow view of post modification test requirements. Therefore, the NRC considers the 50 percent escalation of the civil penalty based on this factor warranted.



### Past Performance

With regard to the licensee's contention that a base civil penalty be mitigated 100 percent for a SALP 1 rating, 50 percent for a SALP 2 rating, and 0 percent for a SALP 3 rating, the NRC does not believe that application of such a rigid formula serves to appropriately explain the need to improve performance. The Enforcement Policy clearly allows application of broad discretion in this area by allowing the base civil penalty to be either escalated or mitigated by up to 100 percent. Application of discretion (in either direction) can only be taken after due consideration of the many facts that make up each case.

The NRC recognizes that the licensee's general past performance has been adequate as evidenced by an overall SALP 2 rating in all functional areas. However, upon examination of the details in several of the last SALP's functional areas (Operations, Maintenance and Surveillance, and Safety Assessment) that are related to the violations cited here, it was noted that the licensee has experienced past problems with the proper classification and reporting of safety component failures and significant events in a timely manner. Other specific concerns also addressed by the last SALP included the adequacy of maintenance and modification retesting and the need to improve the support provided by the Compliance and Design Engineering groups in determining technical specification compliance. Although these concerns were judged not to be significant enough to warrant a category 3 SALP rating, they were indicative of a need for further improvement. While the licensee's overall past performance was adequate, the staff has determined that the past performance was not such as to merit mitigation in this case.

### Other Reasons for Mitigating the Civil Penalty

Once the Severity Level is determined in accordance with the Enforcement Policy (Policy), the base civil penalty is established in Table IB of the Policy. The escalation and mitigation factors are then considered to determine what adjustments, if any, to the base civil penalty are warranted. Safety significance is not an escalation or mitigation factor but a determinant of the severity level. In this case, the NRC appropriately considered safety significance in establishing the severity level of the violation. Specifically, the licensee's Post Modification Testing Program did not ensure that a technical specification required safety system train was operable prior to placing the reactor in a mode where that system was required to be operable. Such program errors are considered significant because they could be applied to any safety system.

### Restatement of Violation

#### Violation B

10 CFR 50.73(a)(2) requires the submittal of a Licensee Event Report within 30 days after discovery of any operation or condition prohibited by the plant's Technical Specifications.

Contrary to the above, on September 14, 1988, the licensee determined that

Catawba Unit 2 had previously operated for 42 days in a condition prohibited by the plant's Technical Specifications because train A of the Containment Air Return and Hydrogen Skimmer (VX) System had been inoperable and a Licensee Event Report was not submitted until January 27, 1989.

#### Summary of Licensee's Response

Duke Power Company admits the violation. In the response, however, the licensee contends that as they interpret the enforcement policy a Severity Level III should not have been imposed in this case and that the violation should have been characterized as a Severity Level IV. The response states that because of the complexity of the circuit as a result of the wiring swap and the time required to understand the effects, an unusual amount of time was taken to report the problem.

#### NRC Evaluation of Response to Violation B

As stated in the NRC letter of May 19, 1989, Violation B concerned the excessive amount of time that it took to report this event. It is not acceptable to take 10 months to evaluate an event to determine reportability. The NRC was particularly concerned that after the licensee correctly determined that the system was previously inoperable, it took an additional 4 months to issue the LER. This represents a significant programmatic weakness with the licensee's event evaluation and reporting system. The staff recognizes that the Enforcement Policy provides an example at a Severity Level IV for a violation involving the failure to submit an LER. However, the examples in the Supplement are just that. In accordance with the Enforcement Policy they are neither controlling nor exhaustive. Under the circumstances of this case the staff concluded that the delay in submitting this report represented a significant regulatory concern therefore justifying a Severity Level III categorization. After review of the licensee's response, which provided no additional information not already considered, the NRC determined that there is insufficient cause to reduce the severity level of Violation B.





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

June 2, 1989

Docket No. 50-219  
License No. DPR-16  
EA 88-203

GPU Nuclear Corporation  
ATTN: Mr. P. R. Clark  
President  
Oyster Creek Nuclear Generating Station  
P. O. Box 388  
Forked River, New Jersey 08731

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC Inspection Report Nos. 50-219/85-39 AND 50-219/86-08, and  
NRC Office Of Investigation Synopsis I-87-006)

This refers to the NRC inspection conducted on December 2-6, and 19, 1985 and March 24-27, 1986 to review the program for the environmental qualification (EQ) of equipment at the Oyster Creek Nuclear Generating Station. The inspection reports were sent to you on February 14, 1986 and August 8, 1986. During the inspections, violations of NRC requirements were identified, including violations identified by your staff. The violations involve the lack of qualification of certain items of electric equipment.

This also refers to the investigation conducted by the NRC Office of Investigations (OI) regarding an inaccurate statement made by the GPU Manager of EQ during a conference call with the NRC on December 5, 1985. The inaccurate statement concerned the type of terminal block in place in the control circuit of certain pressure switches associated with the main steam isolation valves. The synopsis of the OI Report was sent to you on September 16, 1988.

On October 20, 1988, an enforcement conference was conducted with Mr. E. E. Fitzpatrick, Mr. R. F. Wilson, and other members of your staff to discuss the significance and extent of the violations, their causes and the corrective actions taken or planned, as well as the circumstances surrounding the inaccurate statement and the actions taken or planned to prevent recurrence. Further, the enforcement considerations set forth in Generic Letter 88-07 were also considered.

One of the violations, which is described in Section I of the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice), included the failure to maintain, for an item of electric equipment, a complete file of documentation to demonstrate that the item was qualified to perform its intended function during postulated environmental conditions. This item, which was identified by the NRC, involved sixteen limit switches associated with the Main Steam Isolation Valves. These switches, which provide inputs to the Reactor Protection System and the Primary Containment Isolation System,



were unqualified in that they did not have the required moisture seals installed, and the documentation in the qualification file did not support qualification without these seals.

This deficiency clearly should have been known and corrected by you prior to November 30, 1985, which was the deadline for being in compliance with the EQ requirements. You chose to install these components without the moisture seals which had been used by the manufacturer to demonstrate qualification. In this case, the equipment qualification test report clearly assigns responsibility to the customer to prevent the intrusion of the hostile environment through the conduit entrance. With regard to your argument that the installed condition would have precluded moisture intrusion, the NRC staff concludes that the installed configuration was so different from that qualified by the vendor that qualification could not be demonstrated without proper testing and analysis.

This violation demonstrates that sufficient attention was not provided to the EQ program at Oyster Creek prior to November 30, 1985, as evidenced by inadequate consideration of vendor installation information, and inadequate quality control of these activities. Accordingly, I have been authorized, after consultation with the Director of Enforcement, the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, and the Commission to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Enclosure 1) in the amount of Fifty Thousand Dollars (\$50,000) for the violation described in Section I of the enclosed Notice. In accordance with the "Modified Enforcement Policy Relating to 10 CFR 50.49," contained in Generic Letter 88-07 (Enclosure 2), the violation described in Section I of the enclosed Notice has been determined to be isolated affecting one system and a few components, and therefore, is considered to be an EQ Category C violation. The base value of a civil penalty for an EQ Category C violation is \$75,000.

In determining the civil penalty amount, the NRC considered the four factors set forth in the "Modified Enforcement Policy Relating to 10 CFR 50.49", for escalation and mitigation of the base civil penalty amount. These factors consist of (1) identification and prompt reporting of the EQ deficiencies ( $\pm 50\%$ ); (2) best efforts to complete EQ within the deadline ( $\pm 50\%$ ); (3) corrective actions to result in full compliance ( $\pm 50\%$ ); and (4) duration of a violation which is significantly below 100 days ( $-50\%$ ).

With respect to the first factor, 50% escalation is appropriate since the violation was identified by the NRC. With respect to the second factor, 50% mitigation is appropriate, notwithstanding the failure to detect the limit switch installation deficiency and a number of less significant concerns, because your voluntary shutdown of the reactor for one month prior to November 1985 demonstrated best efforts to comply with the EQ requirements within the deadline. With respect to the third factor, 50% mitigation is appropriate since your corrective actions, upon identification, were both prompt and extensive. With respect to the fourth factor, mitigation is inappropriate since this EQ violation existed in excess of 100 days. Therefore, on balance, 50% mitigation of the base civil penalty is appropriate. However, in accordance with Section IV.B of the Enclosure to Generic Letter 83-07, the minimum civil penalty of \$50,000 is being assessed.

In addition to the violation assessed a civil penalty, we are also issuing a Severity Level IV violation for several other items that were found to be unqualified at the time of the inspection. Since the NRC finds that the licensee was able to demonstrate these items as qualified or qualifiable within a reasonable period after identification, classification of this violation at Severity Level IV is appropriate.

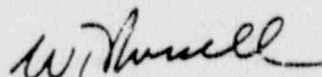
In addition to these EQ deficiencies, the NRC is also concerned about the inaccurate information provided to the NRC by the GPUN Manager of EQ during the telephone call on December 5, 1985. The GPUN Manager of EQ informed the NRC, during that telephone call, that either GE, States, or Weidmuller Terminal Blocks were in place in the control circuit of certain pressure switches associated with the main steam isolation valves, and that any of the three types of terminal blocks were still environmentally qualified, despite the known deficiencies with the terminal boxes that housed those terminal blocks which were identified by your staff on November 26, 1985. This statement was, in fact, inaccurate since your staff determined, during a subsequent "walkdown" of the four terminal blocks involved on that date, that Stanwick Terminal Blocks were being used in these control circuits, and these Stanwick Terminal Blocks were not listed on the EQ Master List nor was there any documentation establishing the qualification of these terminal blocks. The NRC notes that such a statement could constitute a violation of the "accurate and complete information" requirement set forth in 10 CFR 50.9. However, a violation is not being cited in this case since the requirement set forth in 10 CFR 50.9 did not become effective until February 1, 1988. Nonetheless, we emphasize that any inaccurate information provided to the NRC in the future may result in a violation of 10 CFR 50.9 and escalated enforcement action.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget, otherwise required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

See next page for enclosures and cc's.

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Generic Letter 88-07

cc:

M. Laggart, BWR Licensing Manager  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector (w/SIGI)  
State of New Jersey



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

GPU Nuclear Corporation  
Oyster Creek

Docket No. 50-219  
License No. DPR-16  
EA 88-203

During NRC inspections conducted on December 2-6 and 19, 1985 and March 24-27, 1986, of the licensee's program for environmental qualification (EQ) of equipment, violations of NRC requirements were identified. In accordance with the "Modified Enforcement Policy Relating to 10 CFR 50.49, Environmental Qualification of Electrical Equipment Important to Safety of Nuclear Power Plants," which accompanied Generic Letter 88-07, the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

I. VIOLATION ASSESSED A CIVIL PENALTY

10 CFR 50.49 (f), and (j), respectively require that (1) each item of electric equipment important to safety shall be qualified by testing and/or analysis of identical or similar equipment, and the qualification based on similarity shall include a supporting analysis to show that the equipment to be qualified is acceptable; and (2) a record of the qualification shall be maintained in an auditable form to permit verification that each item of electrical equipment important to safety is qualified and that the equipment meets the specified performance requirements under postulated environmental conditions.

Contrary to the above, from November 30, 1985, until approximately March 27, 1986, the qualification of sixteen Namco (Model EA740) limit switches (associated with the four Main Steam Isolation Valves, and used as inputs to the Reactor Protection System and the Primary Containment Isolation System) was not established in that required moisture seals were not installed, and there was no analyses or testing performed to demonstrate that the switches were qualified without the moisture seals.

This is a Category C violation.

Civil Penalty - \$50,000

II. VIOLATION NOT ASSESSED A CIVIL PENALTY

10 CFR 50.49 (f), and (j), respectively require that (1) each item of electric equipment important to safety shall be qualified by testing and/or analysis of identical or similar equipment, and the qualification based on similarity shall include a supporting analysis to show that the equipment to be qualified is acceptable; and (2) a record of the

qualification shall be maintained in an auditable form to permit verification that each item of electrical equipment important to safety is qualified and that the equipment meets the specified performance requirements under postulated environmental conditions.

Contrary to the above, at various times after November 30, 1985, certain environmental qualification files did not include the required documentation to demonstrate environmental qualification of the related equipment, as evidenced by the following examples.

1. as of March 27, 1986, the qualification of six PVC tape splices, associated with six high drywell pressure switches and used to actuate the Containment Spray, Core Spray and Auto Depressurization Systems was not established in that documentation set forth in the file did not demonstrate that the equipment functional performance requirements were met. Specifically, the insulation resistance requirements were not addressed;
2. as of March 27, 1986, the qualification of the Namco (Mode D 1200G) limit switch (located in the Reactor Building and associated with valve V-23-18) was not established in that there was no analysis to justify that the limit switch would perform its intended function for specified functional performance requirements, specifically, a 100% relative humidity environment;
3. as of March 27, 1986, the qualification of Rockbestos Firewall III SIS Cables used at the facility was not established in that severe cable degradation which occurred during the qualification test was not adequately addressed in the EQ file, and functional performance criteria were not established and compared to the measured parameters during the type test; and,
4. as of December 5, 1985, the qualification of four Stanwick Electric Type SLS Terminal Blocks (associated with the RE-23A, B, C and D main steam line low pressure switches) was not established in that a qualification file did not exist to verify that the terminal blocks would perform their intended function during postulated environmental conditions.

This is a Severity Level IV violation. (Supplement 1)

Pursuant to the provisions of 10 CFR 2.201, GPU Nuclear Corporation (Licensee) is hereby required to submit a written statement of explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance was or will be achieved. If an adequate reply is not received within the time specified in this Notice, an

order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice for which a civil penalty is proposed in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in the Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

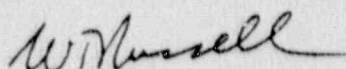
In requesting mitigation of the proposed penalty, the mitigation factors in the "Modified Enforcement Policy Relating to 10 CFR 50.49, Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants," contained in Generic Letter 88-07, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.



The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, a copy to the Regional Administrator, U. S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, PA, 19406 and a copy to the NRC Resident Inspector, Oyster Creek.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 2<sup>nd</sup> day of June 1989.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
700 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

July 20, 1989

Docket No. 50-461  
License No. NPF-62  
EA 89-59

Illinois Power Company  
ATTN: Mr. D. P. Hall  
Senior Vice President  
Clinton Power Station  
Mail Code V-275  
P. O. Box 678  
Clinton, IL 61727

Gentlemen:

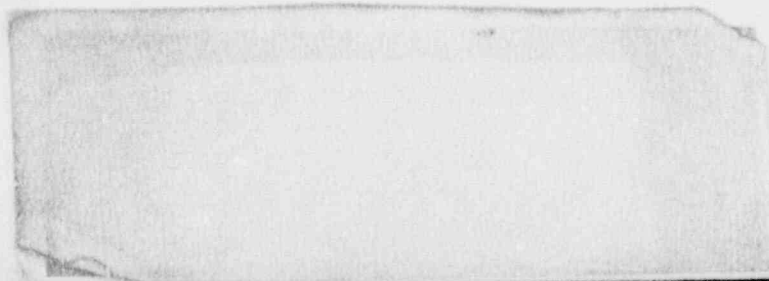
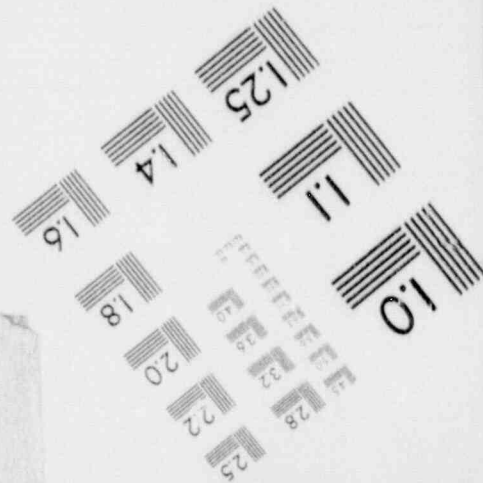
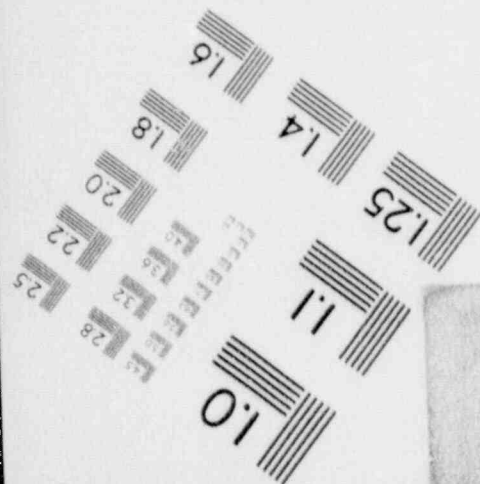
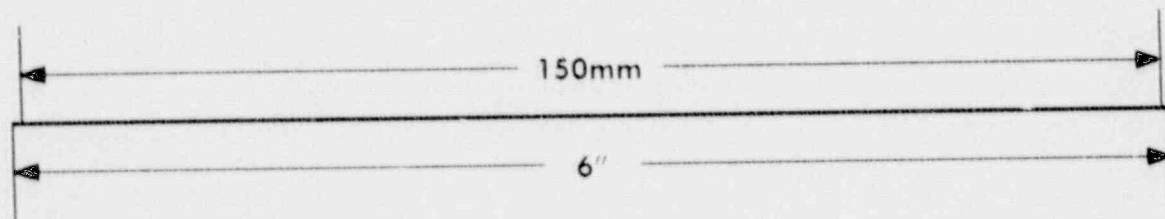
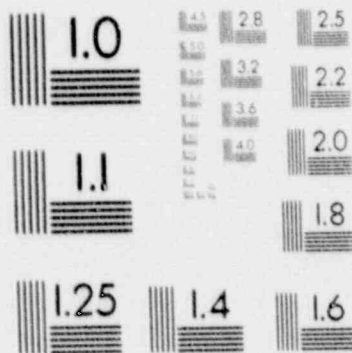
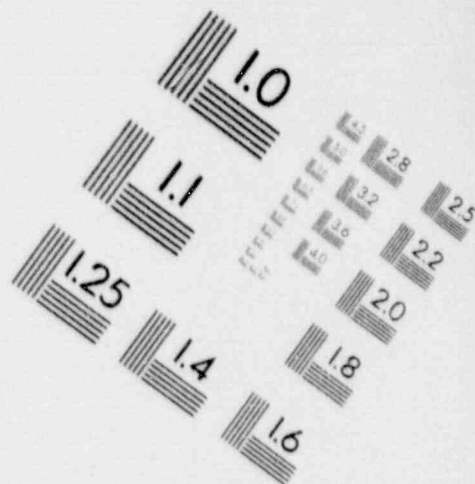
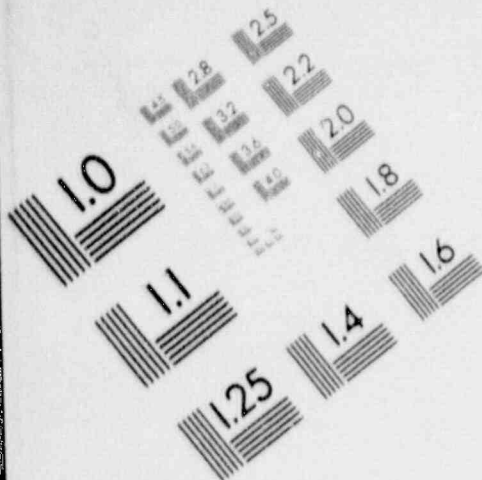
SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES (NRC INSPECTION REPORTS NO. 50-461/89006(DRS) AND NO. 50-461/89014(DRP))

This refers to the NRC inspections conducted during the period February 6 through March 3 and March 16 through May 30, 1989, at the Clinton Power Station, of activities authorized by NRC Operating License No. NPF-62. The inspections included, among other things, a review of your environmental qualification program and your corrective actions taken in response to the previous identification of significant problems with your environmental qualification program. The reports documenting the inspections were sent to you by letters dated March 16 and June 12, 1989. The NRC concerns relative to the inspection findings were discussed with your staff during enforcement conferences conducted in the NRC Region III office on March 21 and June 14, 1989. Summary reports of the conferences were sent to you by letters dated March 29, 1989 and June 23, 1989.

Violation A described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties is indicative of a significant problem in your environmental qualification (EQ) corrective action program. After the NRC identified deficiencies in your EQ program and imposed a \$75,000 civil penalty on October 20, 1988, and after you assured us that as of November 1987 all rework had been completed on unqualified Kynar splices and junction boxes that lacked required weep holes, you later identified additional similar problems during routine maintenance activities. Specifically, in December 1988 when your staff completed a walkdown of all EQ devices having Kynar butt splices, it identified a total of six additional unqualified Kynar butt splices in five Limitorque operators. In addition, it found fifteen 10 CFR 50.49 designated EQ junction boxes that did not have required weep holes for draining any potential accumulation of water. All of these junction boxes are inside the containment or high energy line break areas and would be exposed to spray and internal condensation during an accident and therefore require weep holes.

# 1

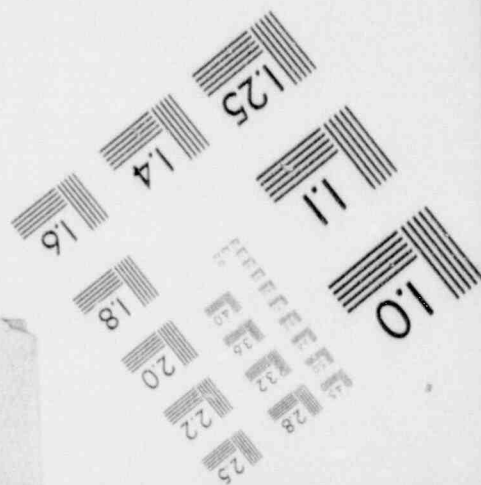
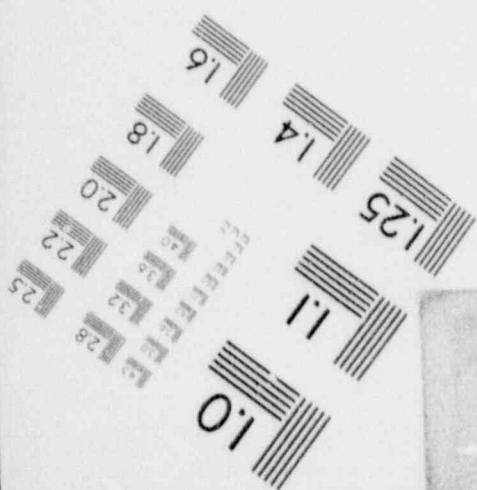
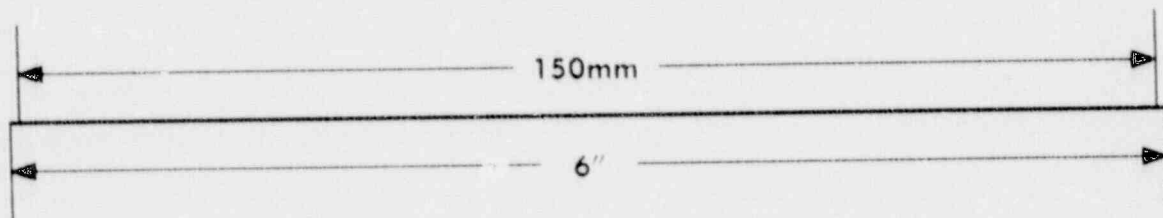
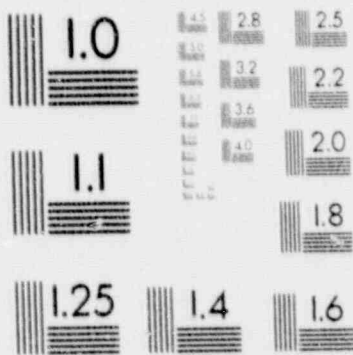
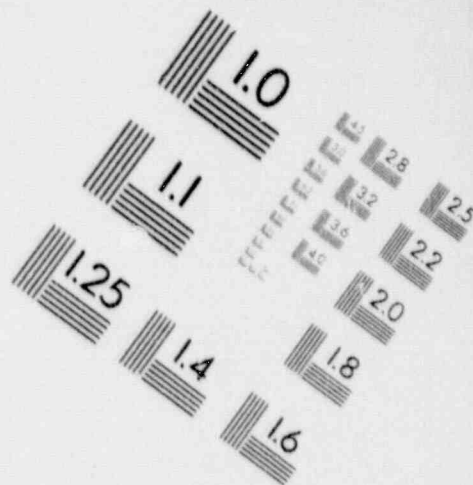
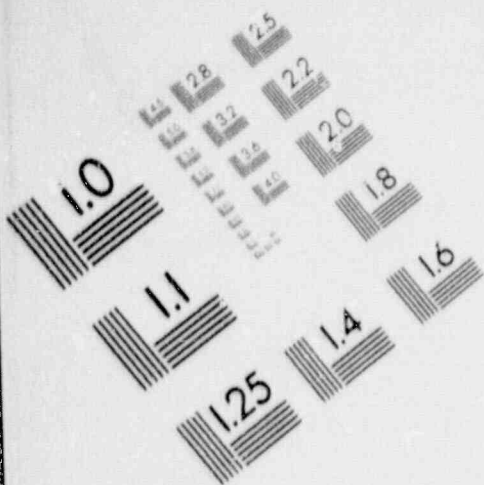
## IMAGE EVALUATION TEST TARGET (MT-3)





# 1

## IMAGE EVALUATION TEST TARGET (MT-3)



July 20, 1989

Violation B described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties concerns the failures on the part of your engineering staff to ensure the installed configurations were the same as the tested configurations, to disposition a nonconforming material report correctly, to classify equipment as EQ, and to properly review test data. The unqualified hydrogen igniters, instrument racks, safety relief valve solenoids, one standby gas treatment damper assembly, and Conax electrical penetration enclosures inside containment had been installed since the beginning of plant operations and represented significant equipment problems that could have led to equipment failures and system loss of function during postulated accident conditions in numerous systems important to safety. The NRC believes the root cause of this violation to be inadequate engineering controls and expertise during initial EQ planning, installation, and oversight. Further, the NRC is concerned that these problems were not discovered earlier.

To emphasize the importance of adequate planning, procedures, involvement of qualified personnel, and engineering control, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Material Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the cumulative amount of Seventy-Five Thousand Dollars (\$75,000) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C 53 Fed Reg 40019 October 13, 1988 (Enforcement Policy), the violations described in the enclosed Notice have each been categorized at Severity Level III. The base value of a civil penalty for a Severity Level III violation is \$50,000. The escalation and mitigation factors in the enforcement policy were considered for Violation A and it was concluded that 50 percent reduction in the base civil penalty was appropriate because of your identification, reporting, and corrective action once you became aware of the scope of the violation. The escalation and mitigation factors were considered for Violation B and we concluded that no adjustment to the base civil penalty was appropriate because your good identification, reporting and corrective actions were offset by the prior notice provided by the earlier EQ civil penalty and issuances such as Information Notice 84-47.

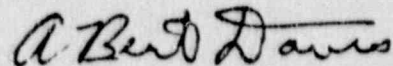
You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 20, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

July 20, 1989

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,



A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation  
and Proposed Imposition  
of Civil Penalties
2. Inspection Reports  
No. 50-461/89006(DRS);  
No. 50-461/89014(DRP)
3. Enforcement Conference Reports  
No. 50-461/89015(DRS);  
No. 50-461/89023(DRS)

cc w/enclosures:

J. S. Perry, Assistant  
Vice President  
R. D. Freeman, Manager,  
Nuclear Station  
Engineering Department  
DCD/DCB (RIDS)  
Licensing Fee Management Branch  
Resident Inspector, RIII  
Richard Hubbard  
J. W. McCaffrey, Chief, Public  
Utilities Division  
H. S. Taylor, Quality Assurance  
Division, Sargent & Lundy  
Engineers  
David Rosenblatt, Governor's  
Office of Consumer Services  
Sheldon Zabel, Esquire,  
Schiff, Hardin, & Waite  
L. Larson, Project Manager,  
General Electric Company  
Chairman of DeWitt County



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTIES

Illinois Power Company  
Clinton Power Station

Docket No. 50-461  
License No. NPF-62  
EA 89-59

During inspections conducted on February 6 through March 3 and March 16 through May 30, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C 53 Fed. Reg. 40019 (October 13, 1988), the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C 2282, and 10 CFR 2.205. The particular violations and the associated civil penalties are set forth below:

- A. 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures be established to assure that conditions adverse to quality, such as nonconformances, are identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. The corrective action taken shall be documented and reported to appropriate levels of management.

Contrary to the above, the licensee failed to assure that conditions adverse to quality, including nonconformances, were promptly identified and corrected after an NRC inspection identified significant environmental qualification (EQ) deficiencies with Kynar splices and junction boxes that resulted in the imposition of a \$75,000 civil penalty (EA 88-90) on October 20, 1988. Specifically, an NRC inspection conducted on February 6 through March 3, 1989 determined that the licensee's corrective action program had failed to identify six additional unqualified Kynar butt splices and 15 junction boxes inside containment that were not provided with required weep holes.

This is a Severity Level III violation (Supplement I).  
Civil Penalty - \$25,000

- B. 10 CFR 50.49(f) requires, in part, that each item of electric equipment important to safety be qualified by testing identical or similar equipment under environmental conditions identical or similar to those postulated for an accident, with analysis to show that qualification based on similarity is acceptable.

Contrary to the above, as of April 20, 1989, the following equipment important to safety was not qualified in that:

1. The field connections for 95 of the 116 hydrogen igniters had unqualified taped splices,
2. Numerous instrument circuits affecting multiple safety systems landed on terminal blocks on General Electric instrument racks inside of containment were not analyzed for leakage current,
3. The ASCO solenoid valves associated with 16 main steam safety relief valves had unqualified connectors,
4. One standby gas treatment system train A reactor water cleanup pump room damper assembly was not qualified for the postulated humidity condition, and
5. Some Conax electrical penetration enclosures were installed in an unqualified condition that would allow containment spray to impinge on terminal blocks having instrument and control circuits.

This is a Severity Level III violation (Supplement I).  
Civil Penalty - \$50,000

Pursuant to the provisions of 10 CFR 2.201, Illinois Power Company (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective actions that have been taken and the results achieved; (4) the corrective actions that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an Order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalties by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the cumulative amount of the civil penalties proposed above, or may protest imposition of the civil penalties in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an Order imposing the civil penalties will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of

July 20, 1989

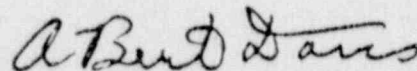
Violation" and may: (1) deny the violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties, in whole or in part, such answer may request remission or mitigation of the penalties.

In requesting mitigation of the proposed penalties, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalties.

Upon failure to pay any civil penalties due which subsequently have been determined in accordance with the applicable provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137 and a copy to the NRC Resident Inspector at the Clinton Power Station.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 20th day of July 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
476 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

June 12, 1989

Docket No. 50-286  
License No. DPR-64  
EA 89-75

New York Power Authority  
Indian Point 3 Nuclear Power Plant  
ATTN: Mr. John C. Brons  
Executive Vice President -  
Nuclear Generation  
123 Main Street  
White Plains, New York 10601

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY -  
\$25,000 (NRC Inspection Report Nos. 50-286/89-05; 50-286/89-06)

This refers to the NRC physical security inspection conducted between February 27 and March 3, 1989, as well as the routine resident inspection conducted between February 28 and April 17, 1989, at the Indian Point 3 Nuclear Power Plant, Buchanan, New York. The reports of these inspections were sent to you on April 14, 1989, and May 9, 1989, respectively. During these inspections, NRC inspectors reviewed the circumstances associated with violations of physical security requirements identified by your staff and reported to the NRC involving: (1) the unauthorized entry of a terminated contractor employee into the protected area on March 21, 1989, three days after his termination for cause, and (2) the failure to secure, in a locked condition, an alarmed access gate to the protected area for 15 hours spanning February 4-5, 1989. During the inspections, additional violations of security requirements were identified, including multiple failures to adequately search personnel, packages, and vehicles. On April 28, 1989, an enforcement conference was conducted with Mr. William Josiger and members of your security management staff to discuss these violations, their causes, and your corrective actions.

The violations described in Section I of the enclosed Notice of Violation and Proposed Imposition of Civil Penalty involve: (1) a security guard permitting a former contractor employee to enter the protected area using another individual's access badge; and (2) the failure to notify the NRC Operations Center within one hour of discovery of this incident. These violations are of particular concern to the NRC because the individual remained in the protected area for approximately two hours without being detected by security personnel, and the individual's former supervisor, although observing the individual in the protected area with another individual's badge, did not inform security personnel of the incident until five hours later. Furthermore, although the incident should have been reported to the NRC Operations Center within an hour of initial discovery, it was not reported until three days after security management became aware of the incident.

In addition, the NRC is also concerned that although the individual was terminated for cause on March 18, 1989, the security department was not notified until two days later. This poor communication with the security organization could have allowed that individual to gain access to the Protected Area during those days.

The other violations, which are set forth in Section II of the enclosed Notice, involve: (1) inadequate search of personnel and handcarried items prior to their entry into the protected area; (2) inadequate search of two vehicles prior to their entry into the protected area; (3) failure to lock an alarmed gate which provides access to the protected area, as well as the failures to implement appropriate compensatory measures when the gate was discovered unlocked; (4) failure to provide and/or maintain adequate assessment capabilities for portions of the three protected area barriers and associated isolation zones; and (5) inadequate lighting in certain portions of the protected area. Of particular concern to the NRC are the violations of search requirements since they demonstrate a breakdown in all aspects of the search program. Since four of the violations were identified by the NRC, and since the violations either involve multiple examples or existed for an extended duration, the violations collectively demonstrate a lack of management oversight and control of the security program.

The NRC recognizes that the prior performance at Indian Point 3 in the security area has been good, as evidenced by Category 1 ratings in security during the last five SALP periods. However, these recent violations set forth in the enclosed Notice indicate a recent decline in performance and in implementing the required security program. They also demonstrate the need for promptly increasing, improving, and implementing more effective management oversight and attention to the program to assure that security personnel, as well as other individuals authorized access to the plant, understand and adhere to security program requirements.

To emphasize this need, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operational Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Twenty-Five Thousand Dollars (\$25,000) for Violation I.A described in the enclosed Notice. In accordance with Section C.2 of Supplement III of the "General Statement of Policy and Procedure for NRC Enforcement Actions" 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), Violation I.A has been classified at Severity Level III. Violation I.B, involving the late report of this incident, is classified at Severity Level IV.

With respect to violation I.A, the escalation and mitigation factors were considered and the base civil penalty has been mitigated by 50% because of your prior good performance in the area of security. Consideration was given to full mitigation due to this prior performance; however, this violation is similar to a violation that occurred in December 1988 involving another contractor individual gaining access to the protected area before receiving proper authorization. The circumstances of the earlier violation, including



the fact that the individual was escorted and was fully trained but not yet administratively badged, warranted classification at Severity Level IV. However, the present violation involved a greater potential risk since the individual was not escorted and had been terminated for cause. Further mitigation of the penalty due to your identification of the violation was not warranted because it was not promptly identified and reported to the NRC. Similarly, mitigation for corrective action was not warranted because although your corrective actions were acceptable, they were not considered prompt or extensive. Therefore, on balance, consideration of mitigation and escalation factors provides a basis for 50% mitigation of the base civil penalty for Violation I.A.

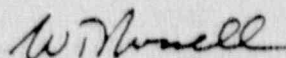
The violations in Section II of the Notice have also been classified in the aggregate at Severity Level III in accordance with Section C.7 of the Enforcement Policy because they indicate a recent lack of attention to and apparent breakdown in the control of the security program. With respect to this Severity Level III problem, the NRC has determined that a basis exists for 100% mitigation of the civil penalty amount because of your prior good performance in the area of security. The NRC considered escalating the civil penalty for the violations in Section II because four of the violations were identified by the NRC, and either involved multiple examples or existed for an extended duration. These factors were the basis for classifying the violations in the aggregate at Severity Level III. In this case, it was not warranted to escalate the penalty based on these factors. However, any similar violations in the future may result in additional escalated enforcement action.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. Further, you should specifically address the reasons why the security department was not notified in a timely manner after the former contractor employee was terminated and what actions have been taken to ensure that the supervisor responsible for this late reporting understands his responsibilities. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

Portions of the enclosed Notice contain details of your security program that have been determined to be exempt from public disclosure in accordance with 10 CFR 73.21 (Safeguards Information). Therefore, those portions will not be placed in the NRC Public Document Room and will receive limited distribution. Further, in your response to this letter and Notice, you should place all Safeguards Information in an enclosure, so as to allow your letter (without the enclosure) to be placed in the Public Document Room.



The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, P. L. No. 96-511.



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation and Proposed Imposition of Civil Penalty  
(Contains Safeguards Information (SGI))

cc w/encl (w/o SGI):

J. P. Bayne, President and Chief Operating Officer  
R. Burns, Vice President, BWR Support (NYO)  
■ Josiger, Plant Manager  
A. Klausmann, Senior Vice President - Appraisal and Compliance Services  
George M. Wilverding, Manager, Nuclear Safety Evaluation  
S. Zulla, Vice President, Nuclear Support PWR (NYO)  
■ Harrington, Director of Security (w/SGI)  
Department of Public Service, State of New York  
State of New York, Department of Law  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector (w/SGI)  
State of New York



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION V

1450 MARIA LANE, SUITE 210  
WALNUT CREEK, CALIFORNIA 94596-5300

JUL 0 5 1989

Docket Nos. 50-275, 50-323  
License Nos. DPR-80 and DPR-82  
EA 89-85

Pacific Gas and Electric Company  
77 Beale Street, Room 1451  
San Francisco, California 94106

Attention: Mr. J. D. Shiffer, Vice President  
Nuclear Power Generation

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES -  
\$75,000 (NRC INSPECTION REPORT NOS. 50-275/89-01, 50-323/89-01,  
50-275/89-05, 50-323/89-05, 50-275/89-13, and 50-323/89-13)

This refers to the Nuclear Regulatory Commission (NRC) inspections conducted by Mr. C. J. Bosted, et al, from January 23 through February 28, 1989, and by Mr. P. P. Narbut and Mr. K. E. Johnston from January 23 through March 5, 1989, and from January 23 through April 6, 1989. The inspections involved three separate topics: a Safety System Functional Inspection (SSFI) overview; an inspection of problems associated with the turbine driven auxiliary feedwater pump steam supply and overspeed protection device; and an inspection of circumstances surrounding missing check valves in the floor drains of the diesel fuel oil transfer pump rooms. The reports documenting these inspections were sent to you by letters dated March 21, March 23, and April 19, 1989. During these inspections, violations of NRC requirements were identified. The apparent violations, their causes and your corrective actions were discussed with you during an enforcement conference held in this office on April 25, 1989. The summary of the enforcement conference was sent to you on May 12, 1989.

The violations in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties involve: (1) the failure to implement or maintain the design basis of the plant through engineering and procedures, and (2) the failure to resolve identified problems in an effective and timely manner. Violations I.A.1, I.A.2, and I.B concern the translation of plant system configuration design assumptions into procedures and resulted, in part, from poor communications between engineering personnel and personnel at the site. Consequently, adequate operating procedures or instructions were not developed to provide guidance for placing the required number of component cooling water (CCW) heat exchangers in service following a LOCA (violation I.A.1), or when in certain CCW pump configurations (violation I.A.2). Additionally, plant operating procedures contained inadequate guidance to specify the operable steam supply requirements to the turbine driven auxiliary feedwater pump (violation I.B). This resulted in the removal of one of the required steam supply paths from service under plant conditions that prohibited it.

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Violation I.C concerns the inadequate review of a design change that replaced the saltwater pump impellers with a larger size. The design review was deficient in that it failed to consider the effects of this additional load on the motor thermal-overload relay setpoints and diesel generator fuel oil consumption. Violation I.D addresses an inadequacy in your process of reviewing vendor recommendations and incorporating them into appropriate plant maintenance procedures. This particular example resulted in an inoperable overspeed trip mechanism for your turbine driven auxiliary feedwater pump. These violations underscore the fact that PG&E engineering work has not been consistently thorough and comprehensive.

Violations II.A and B concern a lack of timely and thorough resolution of identified problems. This has been the subject of previous management meetings, and was emphasized to you in your previous Systematic Assessment of Licensee Performance (SALP) report for the period ending July 31, 1988. We are particularly concerned with the continuing nature of your valve lineup problems, as highlighted by Violation II.A, and the ineffectiveness of your past corrective actions to prevent recurrence. Past management discussions with you on this matter did not achieve the desired results, prompting this enforcement action. We are also concerned that NRC follow-up was required to ensure that certain problems were brought to satisfactory resolution. In Violation II.B, the absence of check valves in the diesel fuel oil transfer vaults was identified as a result of questions originally raised in an NRC team inspection in July 1988. However, you did not properly compensate for these deficiencies until late February 1989, after the NRC noted that you had failed to take compensatory action even though the absence of the check valves had been confirmed in December 1988.

To emphasize (1) the need to successfully implement and maintain plant design bases, (2) the importance of thorough and technically sound engineering work, and (3) the need for comprehensive and timely corrective action for identified problems, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of Seventy Five Thousand Dollars (\$75,000) for the two Severity Level III problems described in the enclosed Notice. The base value of a civil penalty for a Severity Level III problem is \$50,000.

The escalation and mitigation factors set forth 10 CFR Part 2, Appendix C (1988) were considered for each set of violations. For violations I.A through D, no escalation or mitigation was deemed appropriate for identification and reporting. Though you did identify the inoperable overspeed trip mechanism cited in violation I.D, the NRC identified the somewhat more subtle design issues of violations I.A and C and raised the turbine driven auxiliary feedwater pump steam supply issue of violation I.B. However, we commend you on your corrective actions with regard to incorporating vendor supplied information into your preventive maintenance program, and particularly for your implementation of a Configuration Management Program with enhancements in response to the violation that aggressively develops design basis documents and addresses long-term overall engineering performance. Based on these corrective actions, we have mitigated the base civil penalty 50% to encourage continued improvements in this area. No other escalation or mitigation was deemed appropriate, and accordingly a \$25,000 civil penalty is assessed for this Severity Level III problem.



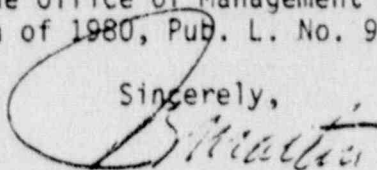
Violations II.A and II.B were neither escalated nor mitigated for identification and reporting. The auxiliary feedwater valve misalignment error was a self-identifying event not noted in several operational logs nor entered into the incident action request (A/R) system by the operators until their next 12 hour shift. The missing diesel engine fuel oil vault floor drain backflow check valve problem was known to your staff on December 22, 1988, but adequate corrective action was not initiated until questioned by the NRC on February 24, 1989. However, changes to your equipment control procedures and corrective action program, as presented to us during the April 25, 1989 enforcement conference, appear to be comprehensive and extensive. Therefore, a 50% mitigation factor is being applied. On the other hand, because of your poor past performance in this area, which has been the subject of several past management meetings and numerous Resident Inspection Reports, the base civil penalty has been escalated 50%. Therefore, a \$50,000 civil penalty is assessed for this Severity Level III problem.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to the Notices, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The response directed by this letter and the enclosed Notices are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Action of 1980, Pub. L. No. 95-511.

Sincerely,



John B. Martin  
Regional Administrator

Enclosure:  
Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/enclosure:  
S. M. Skidmore, PG&E  
R. F. Locke, PG&E  
J. D. Townsend, PG&E (Diablo Canyon)  
D. A. Taggart, PG&E (Diablo Canyon)  
News Services, PG&E Co.  
T. L. Grebel, PG&E (Diablo Canyon)  
State of California  
Sandra Silver

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTIES

Pacific Gas and Electric Company  
Diablo Canyon Units 1 and 2

Docket Nos. 50-275 and 50-323  
License Nos. DPR-80 and DPR-82  
EA-89-85

During Nuclear Regulatory Commission (NRC) inspections conducted on January 22 through April 6, 1989, January 23 through February 28, 1989 and January 23 through March 4, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, as revised, 53 Fed. Reg. 40019 (October 13, 1988), the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

I. Engineering and Plant Procedures

A. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," provides in part, that "Measures shall be established to assure that applicable regulatory requirements and the design basis...for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions."

1. The design basis requirements for the Component Cooling Water (CCW) system described in the Final Safety Analysis Report (FSAR), Section 9.2.2.2, specifies that one CCW pump and heat exchanger are sufficient to provide decay heat removal and essential component cooling in the event of a design basis loss of coolant accident (LOCA) provided that a second CCW heat exchanger is placed in service within 20 minutes.

Contrary to the above, as of January 26, 1989, the requirement that, within 20 minutes following a LOCA, operators place a second CCW heat exchanger into service, had not been translated into appropriate procedures or instructions.

2. The design basis for the Component Cooling Water system, as described in the FSAR, Section 9.2.2, specifies that, following a design basis Loss of Coolant Accident (LOCA), sufficient cooling will be supplied to vital loads. Licensee calculation M-464, dated August 17, 1983, and internal letter No. 84000312, dated February 14, 1984, specify that to meet the design basis, two CCW heat exchangers must be in service whenever CCW pump 1-1 or 1-2 is not available. This calculation is also applicable to Unit 2 (pumps 2-1 and 2-2).

Contrary to the above, as of January 26, 1989, the requirement to have two heat exchangers in service with CCW pump 1-1 or 1-2 not available had not been translated into appropriate specifications, drawings, procedures, or instructions. Between July 20, 1984 (initial entry of Diablo Canyon Unit 1 into Mode 3) and January 26, 1989 (NRC Safety System Functional Inspection team discovery date), the licensee routinely removed CCW pumps 1-1 or 1-2, and 2-1 or 2-2, without putting a second CCW heat exchanger into service.



- B. TS 3.7.1.2, "Auxiliary Feedwater System," states in part that "At least three steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with: a. Two motor-driven auxiliary feedwater pumps, each capable of being powered from separate vital busses, and b. One steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system." This specification is applicable in Modes 1, 2 and 3. The Action Statement for this technical specification provides in part that "With two auxiliary feedwater pumps inoperable, [the reactor shall] be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours."

Contrary to the above, when two of the three Unit 2 auxiliary feedwater pumps were inoperable from January 17, 1989, 5:13 a.m. to January 18, 1989, 6:30 a.m., the reactor was not placed in hot standby or hot shutdown as required; rather, the reactor remained in Mode 1 at approximately 100% power for this entire period.

- C. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," provides in part, that "The design control measures shall provide for verifying or checking the adequacy of design, such as by the performance of design reviews."

Contrary to the above, the licensee failed to perform an adequate design review of Design Change Package (DCP) M-39834, which increased the auxiliary saltwater pump motor load by installing larger impellers on May 25, 1988 for Unit 1 and on October 20, 1988 for Unit 2, as evidenced by:

- (1) The DCP failed to consider the effects of the increased motor load on the time-overcurrent relay setpoints to account for accompanying changes for potential reduced voltage conditions. Consequently, satisfactory performance at the reduced voltage levels specified in the FSAR, Appendix 8.3A, was not assured.
- (2) The DCP failed to consider the effects of the increased motor load on the diesel generator fuel oil consumption. Consequently, the minimum fuel oil storage capacity calculation, M-731, dated January 19, 1988, was not updated to reflect the effects of that increased consumption on minimum storage values specified in the technical specifications.

- D. Technical Specification (TS) 6.8.1 states that: "Written procedures shall be established, implemented and maintained covering... applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978." Section 9 of this Regulatory Guide specifies that maintenance that can affect the performance of safety-related equipment should be properly performed in accordance with procedures or drawings appropriate to the circumstances.

The manufacturer's Technical Manual for the steam driven auxiliary feedwater pump, PG&E document number DC-663056-45, Revision 8, Section 7, with reference to the overspeed trip mechanism, states: "At least once



a week lubricate the moving parts such as trip gear sliding nut and screw spindle with a good grade of oil to keep these parts clean to prevent any possibility of sticking... Warning - It is most important that every overspeed device and trip mechanism be tested regularly, preferably once monthly. This will ensure that the tripping mechanism is operating freely."

Contrary to the above, as of February 12, 1989, the licensee's maintenance procedures for the safety-related steam driven auxiliary feedwater pump were not appropriate to the circumstances in that the overspeed mechanism was neither lubricated nor tested in accordance with the manufacturer's instructions. Consequently, on February 12, 1989, during operator training, the Unit 2 overspeed trip device (FCV-152) failed to actuate when manually exercised due to rust and corrosion inhibiting both the trip mechanism and the valve movement.

Collectively, violations I.A(1), A(2), B, C, and D have been categorized as a Severity Level III problem (Supplement 1) applicable to both Units 1 and 2.

Cumulative Civil Penalty - \$25,000 (assessed equally among the violations).

## II. Corrective Actions

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," states in part that "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected."

- A. Contrary to the above, the licensee failed to take adequate corrective action for recurring valve lineup problems, a significant condition adverse to quality. Specifically, from September 1988 through January 1989, eight instances of valve lineup errors were identified in the monthly Resident Inspection Reports. Licensee's corrective actions in response to four errors that occurred in September 1988 were inadequate to prevent four additional errors that culminated with Unit 2 valve MS 2-923 not being in the closed position from December 1 to December 31, 1988, as required by Operating Procedure D-1:II, "Auxiliary Feedwater System - Alignment Verification in Plant Startup."
- B. Contrary to the above, even though licensee maintenance engineering personnel learned of a condition adverse to quality on December 22, 1988 whereby backflow check valves were not installed in the diesel fuel transfer pump vaults, as required by design, the licensee did not take corrective action until February 24, 1989, following the Resident Inspector's inquiries of the licensee.

Collectively violations II.A and II.B have been categorized as a Severity Level III problem (Supplement 1) applicable to both Units 1 and 2.

Cumulative Civil Penalty - \$50,000 (assessed equally among the violations).

Notice of Violation

- 4 -

Pursuant to the provisions of 10 CFR 2.201, Pacific Gas and Electric Company is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft or money order payable to the Treasurer of the United States in the amount of the civil penalties proposed above, or may protest imposition of the civil penalties in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalties will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties, such answer may request remission or mitigation of the penalties.

In requesting mitigation of the proposed penalties, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay the penalties due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

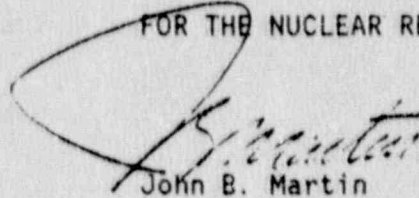
The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalties, and Answer to a

Notice of Violation

- 5 -

Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region V and a copy to NRC Resident Inspector, Diablo Canyon facility.

FOR THE NUCLEAR REGULATORY COMMISSION



John B. Martin  
Regional Administrator

Dated at Walnut Creek, California  
this 5 day of July 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
476 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

August 10, 1989

Docket Nos. 50-352  
50-353  
License Nos. NPF-39  
CPFR-107  
EA 89-126

Philadelphia Electric Company  
ATTN: Mr. C. A. McNeill, Jr.  
Executive Vice President  
Nuclear  
Correspondence Control Desk  
P. O. Box 7520  
Philadelphia, PA 19101

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
- \$75,000  
(NRC Inspection Report No. 50-352/89-11 and 50-353/89-17)

This refers to the NRC emergency preparedness inspection conducted during May 22-26, 1989 and June 7, 1989 at the Limerick Nuclear Generating Station. During the inspection, the report of which was sent to you on June 21, 1989, violations of NRC requirements were identified. On July 6, 1989, an enforcement conference was conducted with you and members of your staff to discuss the violations, their causes and your corrective actions.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty, include: (1) the inability of the operations staff to effectively utilize the Emergency Action Level (EAL) Event Classification guides to properly escalate emergency classifications and make appropriate Protective Action Recommendations (PARs) which would be required in the event of an emergency; and (2) failure to promptly correct deficiencies in the emergency preparedness program which were identified during previous Nuclear Quality Assurance (NQA) audits.

The first violation was identified when NRC inspectors conducted walk-through scenario drills, including postulated equipment failures and changes to key plant parameters, so as to observe operator actions and ascertain the effectiveness of operator training. Five control room shifts (including each Shift Superintendent who is the Interim Emergency Director during an emergency until your emergency response organization is activated) were evaluated with respect to their ability to: (1) recognize initiating conditions requiring entry into the emergency plan; (2) classify events utilizing the EALs; and

(3) escalate emergency classification levels and make appropriate PARs. As a result of these walk-through drills, the NRC determined that four out of the five potential Emergency Directors tested were unable to adequately escalate emergency classifications or make appropriate PARs during a fast breaking severe accident. This indicates that the training provided to these individuals was ineffective in assuring that the Interim Emergency Directors will be able to properly assess initiating conditions and make correct protective action recommendations.

Although you implemented immediate corrective actions by conducting remedial emergency response training, the inability of the Interim Emergency Directors to properly classify events and make appropriate PARs at the time of the previous inspection represents a significant regulatory concern. During a fast breaking accident, these individuals would have the primary emergency control responsibilities for classifying events and making the appropriate recommendations to protect the public until your response organization is fully activated. The NRC recognizes that your corrective actions have been effective as verified during a special inspection conducted by the NRC from July 17-20, 1989.

The second violation involved the failure to correct deficiencies in the emergency preparedness program that were identified during a Nuclear Quality Assurance (NQA) audit conducted in 1988. Specifically, the audit, which received extensive management distribution, identified significant staffing and training problems as well as a lack of sufficient management and administrative controls over the emergency preparedness program to ensure the quality and readiness of the program. Furthermore, the audit findings were consistent with findings from NQA audits conducted in 1986 and 1987 for which the NRC issued a Notice of Violation in February 1988 for failure to adequately address similar identified deficiencies (IR 50-352/88-01). Notwithstanding these program weaknesses, these deficiencies continued to exist at the time of the NRC inspection in May 1989.

The NRC is particularly concerned about the lack of aggressive management action to correct these deficiencies that were identified during three successive NQA audits. Further, programmatic weaknesses in the emergency preparedness area were identified during previous NRC inspections as well as in the most recent SALP report. The NRC recognizes that prior to 1987, the emergency preparedness program at Limerick has historically been good as evidenced by two successive Category 1 SALP ratings. However, the failure to take prompt actions to correct these identified deficiencies has resulted in a significant decrease in the effectiveness of the emergency preparedness program, as evidenced by a SALP 2 rating during the last period compared to prior SALP 1 ratings. These weaknesses were clearly illustrated by the first violation involving the inability of the Interim Emergency Directors to properly classify events due to inadequate training.

The NRC recognizes that, subsequent to the May 1989 inspection, a detailed root cause analysis was performed and that you have increased management oversight of this program and have made programmatic and organizational changes, to ensure the adequate implementation of the emergency plan.



Nonetheless, to emphasize the importance of maintaining increased and improved management oversight and control of the emergency preparedness program at both the corporate and site levels, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of Seventy-Five Thousand Dollars (\$75,000) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violations described in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem to focus on our underlying concern, namely, a lack of effective management oversight and involvement in the emergency preparedness program.

The base civil penalty for a Severity Level III problem is \$50,000. The escalation and mitigation factors set forth in the policy were considered and the following adjustments to the base civil penalty were made: (1) the violations were identified by the NRC and therefore, escalation of the base civil penalty amount by 50% is warranted; (2) once the problems were identified to senior management, your immediate short term corrective actions for the violations, as set forth in your letter to the NRC dated May 26, 1989, as well as the detailed root cause analysis and long term corrective action plan presented at the conference, were considered prompt and extensive and therefore, 50% mitigation of the penalty amount is warranted; (3) as discussed earlier, prior notice of the violation involving failure to correct deficiencies was provided in three successive NQA audits as well as in NRC inspection findings, therefore, 50% escalation of the base civil penalty amount for this factor is warranted. Further escalation of the civil penalty was considered for this factor, but was not taken due to your good overall performance in other functional areas. The other escalation and mitigation factors set forth in the policy were considered and no further adjustment was considered appropriate. Therefore, on balance, the base civil penalty amount has been increased by 50%.

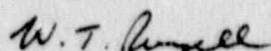
You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.



The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/encl:

J. S. Kemper, Sr., Senior Vice President - Nuclear Construction  
G. M. Leitch, Vice President - Limerick Generating Station  
S. J. Kowalski, Vice President - Nuclear Engineering  
D. R. Helwig, General Manager - Nuclear Services  
M. J. McCormick, Jr., Manager - Limerick Generating Station  
W. T. Ullrich, Manager - Limerick Unit 2 Startup  
A. S. MacAinsh, Manager - Limerick Quality Division  
G. A. Hunger, Jr., Director - Licensing Section  
T. B. Conner, Jr., Esquire  
E. J. Bradley, Esquire, Assistant General Counsel  
H. D. Honan, Branch Head - Nuclear Engineering Licensing  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector  
Commonwealth of Pennsylvania

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Philadelphia Electric Company  
Limerick Generating Station  
EA 89-126

Docket Nos. 50-352  
50-353  
License Nos. NPF-39  
CPFR-107

During an NRC inspection conducted on May 22-26, 1989 and June 7, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 15, 1988) (Enforcement Policy), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282 and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. 10 CFR 50.54(q) requires a licensee to follow and maintain in effect emergency plans which meet the standards of 10 CFR 50.47(b) and Appendix E to this part. Specifically, Appendix E.IV.B (Assessment Actions) requires, in part, that emergency action levels are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect the public's health and safety.

Contrary to the above, during walk-through drills conducted in May 1989 designed to test the licensee's ability to recognize and classify emergency conditions, certain licensee personnel could not adequately utilize the Emergency Action Level (EAL) Event Classification guides to classify certain types of accidents. Specifically, four of the five shift superintendents, who are designated as Interim Emergency Directors during an emergency, could not adequately classify certain types of fast breaking severe accidents nor make appropriate Protective Action Recommendations (PARs).

- B. 10 CFR Part 50, Appendix B, Part XVI requires, in part, that measures be established to assure that conditions adverse to quality, such as deficiencies, are promptly identified and corrected.

Contrary to the above, at the time of the inspection in May 1989, deficiencies had not been corrected which were identified by a licensee Nuclear Quality Assurance Department audit performed in November 1988, pursuant to the requirements of 10 CFR 50.54(t) (including inadequate staffing, no task analysis of the emergency preparedness program, quality of training and quality of the emergency exercise program). These deficiencies were previously identified in 1986 and 1987 audits by the same group and adequate corrective actions had not been taken.

These violations are classified in the aggregate as a Severity Level III problem. (Supplement VIII)

Cumulative Civil Penalty - \$75,000 (assessed equally among the violations)

Pursuant to the provisions of 10 CFR 2.201, Philadelphia Electric Company is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation(s) listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

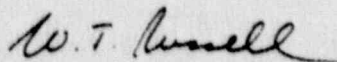
In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1988), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.



Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 10<sup>th</sup> day of August 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

AUG 31 1989

Docket No. 50-395  
License No. NPF-12  
EA 89-143

South Carolina Electric & Gas Company  
ATTN: Mr. O. S. Bradham  
Vice President, Nuclear Operations  
Virgil C. Summer Nuclear Station  
Post Office Box 88  
Jenkinsville, South Carolina 29065

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC INSPECTION REPORT NO. 50-395/89-14)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted by L. Lawyer at the V. C. Summer facility on June 14-15, 1989. The inspection included a review of the circumstances surrounding the assumption, on June 2, 1989, of licensed operator duties by an operator who had failed the annual requalification exam and had not satisfactorily completed retraining and retesting. The report documenting this inspection was sent to you by letter dated July 17, 1989. As a result of this inspection, a significant failure to comply with NRC regulatory requirements was identified, and accordingly, NRC concerns relative to the inspection findings were discussed in an Enforcement Conference held on July 28, 1989. The letter summarizing this Conference was sent to you on August 10, 1989.

The violation described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involved a failure to assure that an operator or senior operator qualified pursuant to 10 CFR Part 55 was present at the controls. This was caused when a licensed but unqualified senior reactor operator assumed the operator-at-the-controls watch from about 7:00 a.m., to 10:00 a.m., on June 2, 1989, with the unit in mode five. This SRO had taken a written requalification examination on April 11, 1989, with a failing score as determined on April 21, 1989. No retraining nor retesting, as required by 10 CFR Part 55 was performed prior to this person's assumption of the watch on June 2, 1989. The station staff promptly identified and reported the incident to the NRC. The NRC recognizes that other properly qualified licensed operators were on watch with other duties in the control room during this time period. We also note that while the immediate corrective action of relieving the unqualified operator was timely, your short-term corrective action was lacking in breadth in that it did not address the contribution of operations management to the error. The long-term corrective action described at the enforcement conference was both thorough and comprehensive.

To emphasize the need for adequate control to assure that properly qualified licensed persons are present at the controls at all times during the operation of the facility, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of

APR 31 1980

Violation and Proposed Imposition of Civil Penalty in the amount of Twenty-Five Thousand Dollars (\$25,000) for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989) (Enforcement Policy), the violation described in the enclosed Notice has been categorized as a Severity Level III violation. The base civil penalty for a Severity Level III violation is \$50,000.

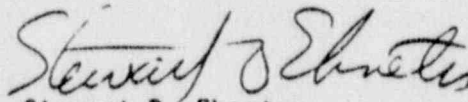
The escalation and mitigation factors in the Enforcement Policy were considered and the base civil penalty has been mitigated by 50 percent. Mitigation was deemed appropriate because your shift supervisor identified and reported the violation, and also for your generally good performance in reactor operations. However, the civil penalty was not completely mitigated because escalation was applied for your failure to initiate adequate corrective actions. Though the immediate corrective action was satisfactory, escalation is appropriate notwithstanding your eventual long term corrective actions because you erroneously determined that the sole root cause of the violation was the individual licensed operator's error. You initially maintained that it was the operator's responsibility to assure that all requalification requirements were met. Consequently, NRC intervention was necessary to focus your attention on the program weaknesses, which you subsequently corrected. No other factors were deemed appropriate and a \$25,000 civil penalty is assessed for this violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Public Law No. 96-511.

Sincerely,



Stewart D. Ebnetter  
Regional Administrator

Enclosure:  
Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/encl: (See page 3)



South Carolina Electric and  
Gas Company

- 3 -

AUG 31 1969

cc w/encl:

J. L. Skolds, General Manager  
Nuclear Plant Operations  
A. R. Koon, Jr., Manager  
Nuclear Licensing  
J. B. Knotts, Jr.  
Bishop, Cook, Purcell & Reynolds  
W. A. Williams, Jr., Technical  
Assistant, Nuclear Operations -  
Santee Cooper  
R. E. Rinear, Executive Vice  
President, South Carolina Public  
Service Authority  
State of South Carolina

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

South Carolina Electric & Gas Company  
V. C. Summer

Docket No. 50-395  
License No. NPF-12  
EA 89-143

During the Nuclear Regulatory Commission (NRC) inspection conducted on June 14-15, 1989, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

10 CFR 50.54(i) states, in part, as a condition of the facility operating license, that the licensee may not permit the manipulation of the controls of any facility by anyone who is not a licensed operator. It further provides that the licensee have in effect a requalification program meeting the requirements of 10 CFR 55.59(c), of this chapter. Licensee administrative procedure No. II.B.4, established to implement 10 CFR 55.59(c), requires that a written examination be given in order to determine each licensed individual's knowledge of topics covered in the requalification program. It further requires that an individual who fails this examination be removed from licensed duties.

Contrary to the above, a senior reactor operator, who failed a written requalification examination administered on April 11, 1989 and graded April 21, 1989, was assigned to the position of operator-at-the-controls on June 2, 1989, and on this date served in this capacity from about 7:00 a.m. to 10:00 a.m., prior to being administered retraining or reexamination.

This violation has been evaluated as a Severity Level III violation (Supplement I).

Civil Penalty - \$25,000.

Pursuant to the provisions of 10 CFR 2.201, South Carolina Electric & Gas Company is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that have been taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

AUG 31 1989

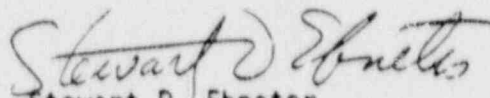
Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V. B of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay the penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region II and a copy to the NRC Resident Inspector, Summer Nuclear Facility.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Stewart D. Ebnetter  
Regional Administrator

Dated at Atlanta, Georgia  
this 31 day of August 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

February 23, 1989

Docket Nos. 50-327 and 50-328  
License Nos. DPR-77 and DPR-79  
EA 88-307

Mr. Oliver D. Kingsley, Jr.  
Senior Vice President, Nuclear Power  
Tennessee Valley Authority  
6N 38A Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC INSPECTION REPORT NOS. 50-327/88-35, 50-328/88-35,  
50-327/88-55 AND 50-328/88-55)

This refers to the special Nuclear Regulatory Commission (NRC) inspections conducted by M. Branch on July 11-15 and August 22-23, and by K. Jenison on November 16 - December 1, 1988 at the Sequoyah Nuclear Plant. The inspections included a review of conditions surrounding the shutdown margin problem associated with excessive cooldowns following reactor trips. The reports documenting these inspections were sent to you by letters dated September 12, 1988 and December 28, 1988 respectively. As a result of these inspections, a significant failure to comply with NRC regulatory requirements was identified, and accordingly, NRC concerns relative to the findings were discussed in a management meeting held on September 13, 1988 and in an Enforcement Conference held on December 19, 1988. A letter summarizing the Enforcement Conference was sent to you on December 30, 1988.

The violations described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty involve (1) an operating condition involving excessive plant cooldowns following a reactor trip that was at variance with FSAR assumptions and had not been evaluated pursuant to 10 CFR 50.59(b); (2) a failure to identify this variance by the licensee during numerous post-trip reviews; and (3) once identified by the NRC, a failure to take adequate corrective action to prevent recurrence. These occurrences raise a significant safety concern regarding the ability of your staff to identify and correct safety deficiencies in that the plant could have been operated in an unanalyzed condition at the end of the core cycle.

This problem was initially identified by you during the May 1982 Unit 2 startup test as test deficiency 2-9.4A-1 associated with the ability to meet FSAR assumptions regarding control of RCS temperature. At that time the problem was not adequately evaluated and was not corrected. Specifically, the initial startup test required that Tave steady out at or above no load Tave without manual intervention on feedwater flow. However, when this parameter was not met during the test, the test deficiency was erroneously accepted by the Plant Operations Review Committee (PORC) with the annotation that the deficiency was

acceptable since there was no mandatory acceptance criteria on this parameter. A subsequent evaluation of the test deficiency, after modifications to the main feedwater system which incorporated a feed pump trip whenever a feedwater isolation occurred, also was inadequate in that no action was taken to review subsequent trips for excessive cooldowns. The failure to adequately evaluate and correct a deficiency in the feedwater system performance resulted in the reduction of the safety margin associated with reactor shutdown margin and increased the probability of occurrence and consequences of an accident or malfunction previously evaluated in the FSAR.

This inadequate condition continued during the October 1984 implementation of symptom based emergency operating procedure ES-0.1, Reactor Trip Response, when TVA did not incorporate the standard Westinghouse Owners Group Emergency Response Guideline to compensate for post reactor trip cooldown and did not correct the condition. Analysis of the affects of this deviation from those guidelines did not adequately consider the impact on shutdown margin and did not provide for mitigation of excessive post-trip cooldown. Again in the September 7, 1984 and November 1, 1985 10 CFR 50.59 safety evaluations for Units 1 and 2, for the Unit 2 cycle 3 and Unit 1 cycle 4 core reload analysis, you failed to recognize that erroneous post-trip RCS temperature data was used in the analyses. Specifically, your analyses incorrectly assumed the post-trip temperature parameter which was specified in the FSAR. This incorrect assumption would result in an end of life condition for the subject cores which would have violated the Technical Specification limit for shutdown margin after a reactor trip.

During your numerous post-trip reviews performed prior to the August 1985 shutdown and the recent post-trip reviews performed subsequent to the May 19, 23 and June 6, 1988 reactor trips, you did not adequately analyze the disparity between assumed and actual system safety parameters associated with post-trip cooldown.

Although most of the major opportunities to correct this problem occurred prior to the extended shutdown of Sequoyah, we have also seen in recent times tendencies by your staff to accept this condition, a failure of your recent post-trip review process to adequately assess the excessive post trip cooldowns, and recent failures to adequately control post-trip cooldown when specific measures to do so were prescribed to resolve this problem.

The NRC acknowledges your assessment that the Sequoyah plants had not reached the period in core life where the affect of the post-trip cooldown on shutdown margin actually resulted in operation in an unanalyzed condition. This does not, however, minimize the significance of the problem nor the potential for operation in an unanalyzed condition under other circumstances.

To emphasize the need to identify and correct operational deficiencies that could lead to plant operation in an unanalyzed manner, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Fifty Thousand Dollars (\$50,000) for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action," 10 CFR Part 2, Appendix C

February 23, 1989

(1988) (Enforcement Policy), the Violation described in the enclosed Notice has been categorized as a Severity Level III problem. The base value of a civil penalty for a Severity Level III violation or problem is \$50,000. The escalation and mitigation factors in the Enforcement Policy were considered and the civil penalty was neither escalated nor mitigated.

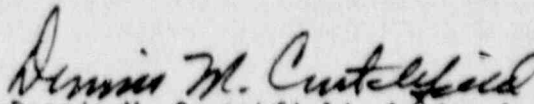
You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and its enclosure are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Should you have any questions concerning this letter, please contact us.

Sincerely,



Dennis M. Crutchfield, Acting Associate Director  
for Special Projects  
Office of Nuclear Reactor Regulation

Enclosure: Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/encl:

J. L. LaPoint, Site Director  
Sequoyah Nuclear Plant  
F. L. Moreadith, Vice President,  
Nuclear Engineering  
R. L. Gridley, Director  
Nuclear Safety and Licensing  
M. Burzynski, Acting Site Licensing Manager  
TVA Representative, Rockville Office  
General Counsel, TVA  
State of Tennessee



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Tennessee Valley Authority  
Sequoyah Units 1 and 2

Docket Nos. 50-327 and 50-328  
License Nos. DPR-77 and DPR-79  
EA 88-307

During the Nuclear Regulatory Commission (NRC) inspections conducted from July 11-15, August 22-23, and November 16 - December 1, 1988, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- I. 10 CFR 50.59, Changes, Tests, and Experiments, allows a licensee to make changes in a facility, as described in the safety analysis report, without prior Commission approval, provided the change does not involve an unreviewed safety question. In part, a change is deemed to involve an unreviewed safety question if the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased, or if the margin of safety as defined in the basis for any technical specification is reduced.

Sequoyah Final Safety Analysis Report (FSAR), Sections 7.7 and 15.1, require, in part, that the feedwater control systems prevent the average reactor coolant temperature ( $T_{avg}$ ) from dropping below the 547°F programmed no-load temperature following a reactor trip to ensure that adequate shutdown margin is maintained.

Contrary to the above, the feedwater control system failed to perform as described in the FSAR in that during the reactor trips of May 19, 23 and June 6, 1988  $T_{avg}$  dropped below the 547°F programmed no-load temperature needed to assure adequate shutdown margin. This would result in an end-of-life condition for the subject cores which would have violated the Technical Specification limit for shutdown margin after a reactor trip, and increased the probability of occurrence and consequences of an accident previously evaluated and, therefore, an unreviewed safety question. There was no evaluation supporting this deviation from the FSAR pursuant to 10 CFR 50.59(b), and this change was implemented without prior Commission approval as required by 10 CFR 50.59(a).

- II. 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires that measures be established to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected.

Contrary to the above, licensee corrective actions which included procedure changes and operator training as outlined in TVA's October 5 and October 14, 1988 letters to the NRC to prevent excessive post-trip reactor cooldowns

were not adequately implemented as demonstrated by the excessive cooldown following the November 18, 1988 Unit 1 reactor trip. This excessive cooldown resulted, in part, due to insufficient training in manual auxiliary feedwater (AFW) control and unclear instructions for manual AFW control in emergency operating procedure ES-01, Reactor Trip Response.

- III. 10 CFR Part 50, Appendix B, Criterion V, Instructions, Drawings, and Procedures, requires that activities affecting quality shall be prescribed by documented instructions, drawings, or procedures of a type appropriate to the circumstances and shall be accomplished in accordance with those instructions, drawings, or procedures. Instructions, drawings, or procedures shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, AI-18, Reactor Post-Trip Review Procedure, established to identify and correct conditions adverse to quality occurring during a reactor trip, failed to provide sufficient guidance and acceptance criteria to evaluate plant performance. The procedure did not compare actual post-trip parameters with FSAR values. Consequently, the post-trip reviews performed following the May 19, 23 and June 6, 1988 reactor trips were inadequate to identify and correct the reactor coolant system over cooling problem.

Collectively, these violations are categorized as a Severity Level III Problem (Supplement I).

Civil Penalty - \$50,000 (assessed equally among the violations).

Pursuant to the provisions of 10 CFR 2.201, Tennessee Valley Authority is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part,

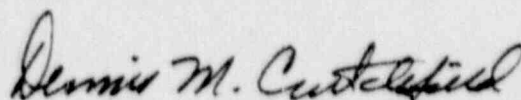
such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the five factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1988), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay the penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Associate Director for Special Projects, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission and a copy to the NRC Resident Inspector, at Sequoyah.

FOR THE NUCLEAR REGULATORY COMMISSION



Dennis M. Crutchfield, Acting Associate Director  
for Special Projects  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 23rd day of February 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 01 1989

Docket Nos. 50-327 and 50-328  
License Nos. DPR-77 and DPR-79  
EA 88-307

Mr. Oliver D. Kingsley, Jr.  
Senior Vice President, Nuclear Power  
Tennessee Valley Authority  
6N 38A Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

Gentlemen:

SUBJECT: ORDER IMPOSING A CIVIL MONETARY PENALTY (SEQUOYAH NUCLEAR PLANT)

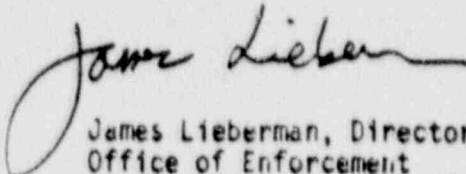
This refers to your letter of March 24, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (notice) sent to you on February 23, 1989. Our letter and Notice described violations at the Sequoyah Nuclear Plant, Units 1 and 2, involving excessive cooldowns following reactor trips and their associated effect on shutdown margins. A civil penalty in the amount of \$50,000 was proposed to emphasize the need to identify and correct operational deficiencies that could lead to plant operation in an unanalyzed manner.

In your response, you admitted the violations but requested reconsideration or mitigation of the proposed civil penalty.

After careful consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty, that a sufficient basis was not provided for reduction or mitigation of the civil penalty amount. Accordingly, we hereby serve the enclosed Order on Tennessee Valley Authority imposing the civil penalty in the amount of Fifty Thousand Dollars (\$50,000). The effectiveness of your corrective actions will be reviewed during a subsequent inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

Sincerely,

  
James Lieberman, Director  
Office of Enforcement

Enclosure: Order w/Appendix

cc's w/encl: See Next Page

Tennessee Valley Authority

cc w/enclosure:

General Counsel  
Tennessee Valley Authority  
400 West Summit Hill Drive  
E11 B33  
Knoxville, Tennessee 37902

Mr. F. L. Moreadith  
Vice President, Nuclear Engineering  
Tennessee Valley Authority  
400 West Summit Hill Drive  
W12 A12  
Knoxville, Tennessee 37902

Vice President and Nuclear  
Technical Director  
Tennessee Valley Authority  
5N 157B Lookout Place  
Chattanooga, Tennessee 37402-2801

Mr. M. J. Ray, Acting Director  
Nuclear Safety and Licensing  
Tennessee Valley Authority  
5N 157B Lookout Place  
Chattanooga, Tennessee 37402-2801

Mr. John L. LaPoint  
Site Director  
Sequoyah Nuclear Plant  
Tennessee Valley Authority  
P. O. Box 2000  
Soddy Daisy, Tennessee 37379

Mr. M. Burzynski  
Acting Site Licensing Manager  
Sequoyah Nuclear Plant  
P. O. Box 2000  
Soddy Daisy, Tennessee 37379

County Judge  
Hamilton County Courthouse  
Chattanooga, Tennessee 37402

Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
101 Marietta Street, N.W.  
Atlanta, Georgia 30323

Mr. Kenneth M. Jenison  
Senior Resident Inspector  
Sequoyah Nuclear Plant  
U.S. Nuclear Regulatory Commission  
2600 Igo Ferry Road  
Soddy Daisy, Tennessee 37379

Mr. Michael H. Mobley, Director  
Division of Radiological Health  
T.E.R.R.A. Building, 6th Floor  
150 9th Avenue North  
Nashville, Tennessee 37219-5404

Dr. Henry Myers, Science Advisor  
Committee on Interior  
and Insular Affairs  
U.S. House of Representatives  
Washington, D.C. 20515

Tennessee Valley Authority  
Rockville Office  
11921 Rockville Pike  
Suite 402  
Rockville, Maryland 20852

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of

TENNESSEE VALLEY AUTHORITY  
(Sequoyah Nuclear Plant Units 1 and 2)

}  
Docket Nos. 50-327 and 50-328  
License Nos. DPR-77 and DPR-79  
EA 88-307

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Tennessee Valley Authority (licensee) is the holder of Operating License No. DPR-77 and No. DPR-79 (licenses) issued by the Nuclear Regulatory Commission (Commission or NRC) on September 17, 1980 and September 15, 1981, respectively. The licenses authorize the licensee to operate the Sequoyah Nuclear Plant, Units 1 and 2, at Saddy-Daisy, Tennessee, in accordance with the conditions specified therein.

II

NRC inspections of the licensee's activities under the licenses were conducted on July 11-15, August 22-23, and November 16 - December 1, 1988. The results of these inspections indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated February 23, 1989. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violations. The licensee responded to the Notice by letter dated March 24, 1989. In its response, the licensee admitted the violations but requested reconsideration or mitigation of the civil penalty.



III

After consideration of the licensee's response and the statements of fact, explanations, and argument for reconsideration or mitigation contained therein, the staff has determined, as set forth in the Appendix to this Order, that the violations occurred as stated and that the penalty proposed for the violations designated in the Notice should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Fifty Thousand Dollars (\$50,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

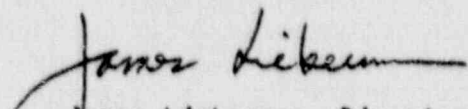
The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S.

Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with copies to the Assistant General Counsel for Hearings and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555; the Associate Director for Special Projects, Office of Nuclear Reactor Regulation, Washington, D.C. 20555; and a copy to the NRC Resident Inspector, Sequoyah Nuclear Plant.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issues to be considered at such hearing shall be whether, on the basis of the violations, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
James Lieberman, Director  
Office of Enforcement

Dated at Rockville, Maryland  
this 15<sup>th</sup> day of August 1989

## APPENDIX

### EVALUATION AND CONCLUSION

On February 23, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations identified during routine NRC inspections at the Sequoyah Nuclear Plant, Units 1 and 2. TVA responded to the Notice in a letter dated March 24, 1989. In its response, the licensee admitted the violations, but requested reconsideration or mitigation of the proposed civil penalty. The NRC staff's evaluation and conclusion regarding TVA's response is as follows:

#### I. Restatement of Violations

- a. 10 CFR 50.59, Changes, Tests, and Experiments, allows a licensee to make changes in a facility, as described in the safety analysis report, without prior Commission approval, provided the change does not involve an unreviewed safety question. In part, a change is deemed to involve an unreviewed safety question if the probability of occurrence or the consequences of an accident or a malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased, or if the margin of safety as defined in the basis for any technical specification is reduced.

Sequoyah Final Safety Analysis Report (FSAR), Sections 7.7 and 15.1, require, in part, that the feedwater control systems prevent the average reactor coolant temperature ( $T_{avg}$ ) from dropping below the 547°F programmed no-load temperature following a reactor trip to ensure that adequate shutdown margin (SDM) is maintained.

Contrary to the above, the feedwater control system failed to perform as described in the FSAR in that during the reactor trips of May 19, May 23 and June 6, 1988,  $T_{avg}$  dropped below the 547°F programmed no-load temperature needed to assure adequate shutdown margin. This would result in an end-of-life condition for the subject cores which would have violated the Technical Specification limit for shutdown margin after a reactor trip, and increased the probability of occurrence and consequences of an accident previously evaluated and, therefore, an unreviewed safety question. There was no evaluation supporting this deviation from the FSAR pursuant to 10 CFR 50.59(b), and this change was implemented without prior Commission approval as required by 10 CFR 50.59(a).

- b. 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires that measures be established to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected.

Contrary to the above, licensee corrective actions, which included procedure changes and operator training as outlined in TVA's October 5 and October 14, 1988 letters to the NRC to prevent excessive post-trip reactor cooldowns, were not adequately implemented as demonstrated by the excessive cooldown following the November 18, 1988 Unit 1 reactor trip. This excessive cooldown



resulted, in part, due to insufficient training in manual auxiliary feedwater (AFW) control and unclear instructions for manual AFW control in emergency operating procedure ES-01, Reactor Trip Response.

- c. 10 CFR Part 50, Appendix B, Criterion V, Instructions, Drawings, and Procedures, requires that activities affecting quality shall be prescribed by documented instructions, drawings, or procedures of a type appropriate to the circumstances and shall be accomplished in accordance with those instructions, drawings, or procedures. Instructions, drawings, or procedures shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, AI-18, Reactor Post-Trip Review Procedure, established to identify and correct conditions adverse to quality occurring during a reactor trip, failed to provide sufficient guidance and acceptance criteria to evaluate plant performance. The procedure did not compare actual post-trip parameters with FSAR values. Consequently, the post-trip reviews performed following the May 19, 23 and June 6, 1988 reactor trips were inadequate to identify and correct the reactor coolant system overcooling problem.

Collectively, these violations are categorized as a Severity Level III problem (Supplement I).

Civil Penalty - \$50,000 (assessed equally among the violations).

## II. Summary of Licensee Response

The licensee admits the violations cited in the subject Notice and acknowledges that the SDM issue represented a condition that, if left uncorrected, could have allowed operation prohibited by the technical specifications (TS). The licensee further acknowledges that overcooling of the RCS in a manner inconsistent with design requirements represents clear departure from good operating principles. However, the licensee believes that there are points meriting consideration relative to their performance in addressing the subject issues. The licensee believes their performance prior to the 1985 shutdown is clearly not reflective of their current ability and inclination to identify and correct safety deficiencies. Extensive management and culture changes were needed and were accomplished during the extended shutdown.

Pertaining to the mitigation factors in Section V.B of the enforcement policy in 10 CFR Part 2, Appendix C, the licensee makes the following arguments relative to reconsideration or mitigation of the proposed civil penalty.

- a. The licensee believes they identified the SDM issue following the first Unit 2 trip after the May 1988 restart.
- b. The licensee believes it promptly resolved the SDM safety issue in June 1988 by instituting requirements for boration and comprehensive corrective actions were initiated to institute programmatic improvements.

While part of the actions taken to address RCS overcooling were determined to be ineffective, as evidenced by operator response to the November 18, 1988, Unit 1 trip, no safety issue resulted because SDM continued to be ensured by boration. The licensee believes that management response to this trip was immediate and thorough, resulting in implementation of additional actions and enhancements to address both specific and programmatic concerns.

Pertaining to enforcement discretion in Section V.G of the enforcement policy in 10 CFR Part 2, Appendix C, the licensee stated that imposition of the civil penalty is not warranted recognizing the licensee's identification, reporting, and correction of the violations.

### III. NRC Staff's Evaluation of Licensee Response

The NRC acknowledges that the performance of the licensee in the area of identification and correction of safety deficiencies has improved substantially since the 1985 shutdown of the Sequoyah units. However, one part of the violations involved the failure to take timely corrective action when the post-trip cooldown issue was brought to the attention of the licensee as on May 20, 1988. Thereafter, several additional reactor trips occurred before the licensee's incident review process investigated the safety significance of the post-trip cooldown. This failure to identify the safety significance of the post-trip cooldown in a timely manner indicated a deficiency in the post-trip review process.

In the area of identification and reporting, the NRC considered the difference of opinion between TVA and the NRC as to who identified the issue. The NRC questioned the excessive cooldown on May 20, 1988. Although the licensee stated that they were evaluating a shutdown margin anomaly after the May 19, 1988 reactor trip, there is no objective evidence that the post-trip cooldown condition was categorized and reviewed by the licensee as a condition adverse to quality prior to the tie-in with potentially inadequate shutdown margin on June 14, 1988. In addition, the excessive post-trip cooldown was contrary to conditions described in the FSAR and should have been promptly evaluated pursuant to 10 CFR 50.59. While the NRC agrees that in most respects the licensee met the minimum regulatory reporting requirements for the shutdown margin issue, on two occasions, on June 19 and July 14, 1988, the licensee failed to communicate the status of its review findings and planned actions concerning this issue to the NRC. This information was important prior to June 19, 1988 because of the pending NRC decision of whether to allow restart of Sequoyah Unit 2. This issue and the associated proposed corrective actions were not brought to the attention of the onsite NRC restart staff and were not discovered by NRC inspectors until after NRC permission had been given to the licensee to restart the plant on June 19, 1988. On July 14, 1988, an NRC inspection team reviewing this issue was informed by the licensee that the licensee did not intend to report the issue, while the licensee was issuing an LER on the same day. Therefore, mitigation of the base civil penalty was not considered appropriate for the factor of identification and reporting.

The licensee's corrective actions did not warrant mitigation of the base civil penalty because they did not prevent an excessive post-trip cooldown during a subsequent reactor trip on November 18, 1988. In addition, TVA knew that the plant simulator did not adequately model post-trip cooldowns, but took no action to change it to facilitate training of reactor operators until after the November 18, 1988 reactor trip. Although a sufficient amount of boron was injected into the plant to ensure adequate shutdown margin, boron injection flow path discrepancies could have been foreseen had the licensee, in addition to testing the procedure on the simulator, reviewed their procedure against the recent reactor trips which had excessive post-trip cooldowns. On balance, neither mitigation nor escalation were considered appropriate for this factor.

Mitigation of the civil penalty pursuant to Section V.G.2 of the NRC Enforcement Policy, extended shutdown facility, is not warranted because the violations do not deal with activities of the licensee that occurred prior to the shutdown and prior to NRC approval for restart of the units. Therefore, enforcement discretion under Section V.G.2 of the NRC Enforcement Policy is not considered applicable.

Mitigation of the civil penalty pursuant to Section V.G.3 of the NRC Enforcement Policy is also not warranted. The violations in this matter do not meet these criteria since, as explained above, they were not identified by the licensee, comprehensive corrective actions were not initiated in a reasonable period of time to prevent the excessive post-trip cooldown that occurred on May 23, June 6, and November 19, 1988, and the violations could have been prevented because the licensee had prior knowledge of the problem after the reactor trip of May 19, 1988. In this regard, although the licensee stated that it was evaluating a shutdown margin anomaly after the May 19, 1988 reactor trip, there is no objective evidence that the post-trip cooldown condition was categorized and reviewed as a condition adverse to quality prior to the tie-in with shutdown margin on June 14, 1988. In fact, the excessive post-trip cooldown was contrary to conditions described in the FSAR and should have been promptly evaluated pursuant to 10 CFR 50.59.

The imposition of the civil penalty is intended to emphasize the need to use established programs such as the post-trip review and 10 CFR 50.59 safety evaluation programs to evaluate and correct problems prior to their impact on actual plant operation.

#### IV. NRC Staff's Conclusion

The licensee did not provide a sufficient basis for reduction of the proposed civil penalty. Consequently, the NRC staff concludes that the proposed civil penalty in the amount of \$50,000 should be imposed.



I.B. REACTOR LICENSEES, SEVERITY LEVEL III VIOLATION,  
NO CIVIL PENALTY



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

**AUG 8 1 1989**

Docket No. 50-414  
License No. NPF-52  
EA 89-138

Duke Power Company  
ATTN: Mr. H. B. Tucker, Vice President  
Nuclear Production Department  
422 South Church Street  
Charlotte, North Carolina 28242

Gentlemen:

SUBJECT: NOTICE OF VIOLATION  
(NRC INSPECTION REPORT NO. 50-414/89-19)

This refers to the Nuclear Regulatory Commission (NRC) inspection at the Catawba facility on June 16 - June 28, 1989. The inspection included a review of the circumstances surrounding an event where both channels of the Reactor Vessel Level Instrumentation System (RVLIS) on Unit 2 were discovered inoperable by your staff on June 16, 1989.

The report documenting this inspection was sent to you by letter dated July 14, 1989. As a result of this inspection, a significant failure to comply with NRC regulatory requirements was identified and, accordingly, NRC concerns relative to the inspection findings were discussed in Enforcement Conferences held on July 20, 1989 and August 15, 1989. The letter summarizing these Conferences was sent to you on August 29, 1989.

The violation described in the enclosed Notice of Violation (Notice) involved a failure to open the upper range pressure transmitter isolation valves on either channel of the Unit 2 RVLIS prior to entering Mode 3 on June 2, 1989. The violation resulted from poor judgement, inattention to detail and inadequate management controls for maintenance in several areas. A maintenance supervisor assigned two technicians, who were not qualified to perform unsupervised maintenance on RVLIS, to restore the system to operable status. This action was not in accordance with the Employee Training and Qualifications System (ETQS) program. The supervisor incorrectly presumed that the task was simple enough for the technicians to perform, failing to comprehend the basis for the qualification requirements. The technicians failed to properly restore the system to operable status due to their unfamiliarity with the system and the use of an inadequate procedure. The technicians used a system calibration procedure in which inapplicable steps had been marked "N/A" by a second maintenance supervisor. The marking had been performed without adequate attention to detail resulting in the appearance that key restoration steps were not applicable. Furthermore, the inadequate restoration was not identified by a third supervisor, who reviewed the completed work package.

AUG 31 1989

You had the opportunity to prevent the inoperability of the RVLIS system during post-maintenance testing but failed to do so due to the inadequate scope of testing. Although your Maintenance Manual requires in Procedure 1.0 that a functional verification be performed on systems after maintenance to demonstrate that the component/system will operate as designed, and guidance is also provided stating that instruments should be verified for correct reading on local and remote gauges, your post-maintenance functional verification of the RVLIS system consisted of merely checking the reconnected instrument lines for leaks.

You also had the opportunity to discover the RVLIS inoperability earlier had you performed a more complete channel check of the RVLIS. It was determined that although RVLIS is comprised of two channels each with three ranges, (lower, dynamic and upper) you only perform a channel check on the dynamic range when the reactor coolant pumps are running. Vendor documents provided information as to the expected readings of the upper range of RVLIS with pumps running. Had that information been used as the basis for a channel check, your staff would have discovered the inoperable channels earlier.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the violation described in the enclosed Notice has been categorized as a Severity Level III violation. We are aware that there are other indicators of reduced reactor vessel level in addition to the upper range RVLIS, but we consider the unavailability of any required ranges of RVLIS, especially under the circumstances of this case, to be a significant regulatory concern. Normally, a civil penalty is assessed for a Severity III violation. However, in recognition of Duke's initiative in identifying the violation through a monthly RVLIS system walkdown, promptly reporting the event to the NRC, and taking comprehensive corrective actions, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Material Safety, Safeguards, and Operations Support, I have decided that a civil penalty will not be proposed in accordance with Section V.G.3 of the Enforcement Policy.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and results of future inspections the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Public Law No. 96-511.



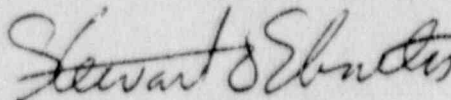
Duke Power Company

- 3 -

AUG 31 1989

Should you have any questions concerning this letter, please contact us.

Sincerely,



Stewart D. Ebnetter  
Regional Administrator

Enclosure:  
Notice of Violation

cc w/encl:  
T. B. Owen, Station Manager  
Senior Resident Inspector - McGuire  
State of South Carolina

## NOTICE OF VIOLATION

Duke Power Company  
Catawba Unit 2

Docket No. 50-414  
License No. NPF-52  
EA 89-138

During the Nuclear Regulatory Commission (NRC) inspection conducted on June 16 - June 28, 1989, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the violation is listed below:

Technical Specification 3.3.3.6 requires that the accident monitoring channels as shown in Table 3.3-10 be operable in Modes 1, 2 and 3. Action Statement b. specifies that with the number of operable accident monitoring instrumentation channels less than the minimum channels operable requirements of Table 3.3-10, restore the inoperable channels to operable status within 48 hours or be in at least hot standby within the following 6 hours. Table 3.3-10 shows the total number of channels required for Reactor Vessel Water Level as 2 and the minimum number of channels operable as 1.

Contrary to the above, both channels of Unit 2 Reactor Vessel Water Level instrumentation were inoperable from June 2, 1989 to June 16, 1989, with the reactor in Modes 1, 2, and 3, and the licensee failed to comply with the action statement. The channels were inoperable because the isolation valves for the upper range pressure transmitters were closed on both channels.

This is a Severity Level III violation (Supplement I).

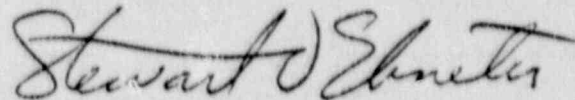
Pursuant to the provisions of 10 CFR 2.201, Duke Power Company is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Notice of Violation

- 2 -

The response to the Director, Office of Enforcement, noted above should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region II and a copy to the NRC Resident Inspector, Catawba.

FOR THE NUCLEAR REGULATORY COMMISSION



Stewart D. Ebnetter  
Regional Administrator

Dated at Atlanta, Georgia  
this 31<sup>st</sup> day of August 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
811 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

JUL 21 1989

Docket No. 50-458  
License No. NPF-47  
EA 89-122

Gulf States Utilities  
ATTN: Mr. James C. Daddens  
Senior Vice President (RBNG)  
Post Office Box 220  
St. Francisville, Louisiana 70775

Gentlemen:

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 50-458/89-18)

This is in reference to the NRC inspection conducted during the period May 1-5 and May 15-19, 1989, at the River Bend Station (RBS), located in St. Francisville, Louisiana, and to NRC's discussion of the inspection findings with Gulf States Utilities (GSU) officials at an enforcement conference in Arlington, Texas, on June 9, 1989.

As you know, NRC's concerns stemming from this inspection focused on the failure to establish a test program which would have assured the operability of the safety-related ventilation systems associated with the fuel building and the main control room. The results of the inspection were documented in NRC Inspection Report No. 89-18, dated June 6, 1989.

During the June 9 enforcement conference, two apparent violations resulting from this inspection were discussed. The violation in the enclosed Notice of Violation (Notice) involves an apparent failure to assure, through the establishment of a test program, the operability of two independent fuel building ventilation subsystems and two subsystems associated with the main control room air conditioning system in accordance with the requirements of plant Technical Specifications (T.S.) 3.6.5.6 and 3.7.2. As a result of River Bend Station's self-initiated Safety System Functional Inspection (SSFI) of the Instrument Air System (IAS) and SSFI followup actions, GSU discovered design and installation flaws that would have prevented these required subsystems from performing their intended function under certain conditions.

NRC has concluded that GSU's failure to have developed an adequate test program resulted in a significant violation of RBS's T.S. in that GSU failed to assure operability of fuel building ventilation and main control room air conditioning subsystems. These subsystems are important for ensuring the maintenance of a negative pressure within the fuel building and limiting any release of radioactivity within 10 CFR Part 100 limits following a design basis or fuel handling accident, and ensuring that the control room will remain habitable for operations personnel during and following all design basis accidents.

JUL 21 1989

Had GSU established an adequate testing and surveillance program to evaluate IAS design and operation, it would have been determined that the subsystem associated with the fuel building ventilation was inoperable from initial fuel load in August 1985 and that the subsystem associated with the main control room air conditioning was inoperable for an indeterminate time.

Generic Letter 88-14, "Instrument Air Supply System Problems Affecting Safety-Related Equipment," alerted licensees to potential IAS problems and required a response verifying that IAS quality, functional characteristics, and design were as intended. A response was required by February 8, 1989, or if operations were affected, the next refueling or scheduled outage in order to avoid adverse system interactions. GSU determined through a self-initiated SSFI conducted during the period November 17 to December 21, 1988, and through SSFI followup actions that solenoid operated valves, check valves, and accumulator tanks would not function as designed for the subsystems associated with the main control room air conditioning and fuel building ventilation systems. These conditions were corrected promptly upon discovery.

The NRC has classified the violation in the enclosed Notice at Severity Level III in accordance with Supplement I of the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy), as published in the Federal Register on October 13, 1988. While the NRC could consider imposing a monetary civil penalty for a Severity Level III violation, I have determined in this case after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, that no penalty will be assessed. I base this decision on discretionary provisions in Section V.G. of the Enforcement Policy. The NRC encourages and supports licensee efforts for self-initiated identification and correction of problems and intends on applying enforcement discretion in cases such as this one in which the problems were identified by a GSU self-initiated SSFI and were promptly corrected. However, the NRC is concerned that upon discovery GSU did not consider the reportability of the problems. Prompt evaluation for reportability and timely reporting are significant issues. Had the problems discovered not been of a highly technical nature, requiring extensive evaluation and review before determining a possible operability problem existed, your failure to promptly report them could have resulted in additional enforcement action being taken.

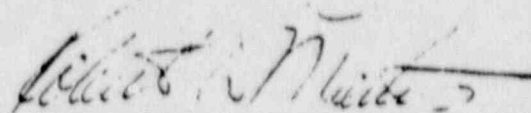
You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions, and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

JUL 21 1989

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The response directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



Robert D. Martin  
Regional Administrator

Enclosure: Notice of Violation

cc:  
Louisiana Radiation Control Program Director  
NRC Public Document Room  
Local Public Document Room



NOTICE OF VIOLATION

Gulf States Utilities  
River Bend Station

Docket No. 50-458  
Operating License: NPF-47  
EA 89-122

During an NRC inspection conducted during May 1-5 and 15-19, 1989, a violation of NRC requirements was identified. The violation involves the failure to establish a test program to assure the operability of the fuel building ventilation charcoal filtration subsystems and the main control room air conditioning system under all design basis conditions. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Federal Register 40019 (October 13, 1988), the violation is listed below:

Criterion XI of Appendix B to 10 CFR Part 50 requires, in part, that a test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents.

Contrary to the above, in November 1988 it was identified that Gulf States Utilities (GSU) had failed to establish a test program at River Bend Station to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed. Specifically, GSU failed to establish a test program to demonstrate that two independent fuel building ventilation charcoal filtration subsystems and two independent main control room air handling unit/filter train subsystems would perform satisfactorily in service. As a result, GSU failed to discover design and installation flaws that would have prevented these subsystems from operating as intended under certain design conditions.

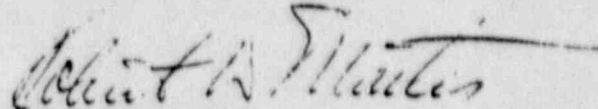
This is a Severity Level III violation. (Supplement 1) (458/8918-01)

Pursuant to the provisions of 10 CFR 2.201, Gulf States Utilities is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with copies to the Regional Administrator, Region IV and the NRC Resident Inspector at River Bend Station, within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation if admitted, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an

JUL 21 1989

order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert D. Martin  
Regional Administrator

Dated at Arlington, Texas,  
this *21<sup>st</sup>* day of July 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406  
September 22, 1989

Docket No. 50-220  
License No. DPR-63  
EA 89-70

Niagara Mohawk Power Corporation  
ATTN: Mr. Lawrence Burkhardt, III  
Executive Vice President  
Nuclear Operations  
301 Plainfield Road  
Syracuse, New York 13212

Gentlemen:

Subject: NOTICE OF VIOLATION

References: Inspection Report Nos. 50-220/88-05; 88-10; 88-11  
Operator Requalification Training  
Investigation Report No. 1-88-003  
Operator Requalification Training  
Inspection Report No. 50-220/88-201  
Safety System Functional Inspection (SSFI)  
Inspection Report No. 50-220/89-01  
Corporate Engineering Support for NMP Unit 1  
Inspection Report No. 50-220/89-02  
Inservice Testing Program

This letter refers to six NRC special and routine inspections conducted between February 22, 1988 and February 17, 1989 at Nine Mile Point, Unit 1, Scriba, New York to review various aspects of licensed activities conducted at your facility. The referenced inspection reports were sent to you previously. The specific areas examined during these inspections included; the licensed operator requalification training program; SSFI Assessment of the functionality of the High Pressure Coolant Injection mode of the feedwater system (HPCI/PW) and core spray system; the adequacy of corporate engineering support of Unit 1; and the Inservice Testing Program.

This letter also refers to the findings of an investigation conducted by the NRC Office of Investigations (OI) relative to identified deficiencies in the conduct and documentation of requalification training for licensed operators. A copy of the OI synopsis was sent to you on March 17, 1989. Based on the inspections and investigation, violations of NRC requirements were identified. On March 30, 1989, an enforcement conference was conducted with you and members of your staff to discuss the OI findings and the violations involving the requalification program, as well as the causes of those violations and your corrective actions.

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED



The violations, which are described in detail in the enclosed Notice of Violation, include, but are not limited to: (1) failure by management to ensure that 39 licensed operators (including 13 subject to NRC license renewal) completed all portions of the operator's requalification program (further details are in NRC Inspection Report 50-220/88-10, Section 2.2); (2) failure to have adequate procedures for certain aspects of primary containment control and operation of the core spray system; (3) failure to translate certain design basis information into appropriate procedures, drawings and specifications; (4) failure to promptly notify the NRC when the plant was operated in an unanalyzed condition, and operated outside of its design basis; and (5) failure to take prompt and appropriate corrective actions when these deficiencies were identified.

The NRC is particularly concerned about the failure of management to ensure that all operators fully completed the requalification training, as evidenced by poor documentation of remediation training, required reading, and attendance at required lectures. Furthermore, information contained in thirteen NRC Form 398s (Personal Qualifications Statement-Licensee) submitted to the NRC as part of the operator license renewal applications, were signed by those individual operators and were certified by former managers as being correct, when in fact, some of the information on those forms was inaccurate. Those forms were inaccurate in that they certified that the applicants for license renewal had satisfactorily completed all requalification program training requirements, when, in fact, those individual operators had not completed certain classroom training, reading assignments and/or simulator training. The accuracy of the information submitted in the renewal application is of particular importance since this information provides a basis for the NRC to conclude that renewal of the reactor operator license is warranted.

While sufficient evidence was not developed during the NRC investigation to conclude that the submission of the inaccurate Form 398s was intentional or made with careless disregard either by the individual operators who signed the forms, or senior management who certified to the accuracy of those forms, it is clear from an analysis of the investigation and associated inspection findings, as well as an inspection of your Emergency Operating Procedures (EOP) in June 1988, that a significant breakdown occurred in the management oversight of both the development and implementation of the operator requalification program. During that EOP inspection (Reference: 50-220/88-22 and 50-410/88-23), the staff found that management attention to the quality of training was deficient, as evidenced by the inability of the operating crews to properly implement the EOPs and adequately understand their bases. Furthermore, these training deficiencies, in part, were identified during audits conducted by your Safety Review and Audit Board in March 1986 and April 1987, and were documented in written notifications from the Training Department to the former Plant Superintendent; however, actions were not taken at that time to correct these deficiencies and prevent recurrence.

This failure to take appropriate corrective measures for identified deficiencies in the training program, as well as the other violations set forth in the enclosed Notice, provide additional examples of the concern previously expressed by the NRC regarding the ineffectiveness of Niagara Mohawk Power Corporation

(NMPC) management in ensuring that problems at your facility are promptly and properly identified, analyzed and resolved. For each of the violations in the enclosed Notice, adequate information in the form of audit findings and/or technical analysis was available to your staff, which if properly evaluated, should have resulted in the timely identification of the problems and initiation of appropriate corrective actions. However, these deficiencies were not promptly corrected.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" 10 CFR Part 2, Appendix C (1989), the violations set forth in the enclosed Notice have been classified as a Severity Level III problem. While a civil penalty is normally considered for a Severity Level III violation or problem, I have decided, after consultation with the Commission, to exercise enforcement discretion in accordance with the guidance set forth in Section V.G.2 of the Enforcement Policy and not issue a civil penalty for these violations.

This exercise of discretion takes into account the fact that Nine Mile Point 1 (NMP1) has been shut down for an extended period of time due to generally poor performance brought about by problems with your ability to self-identify and correct deficient conditions without NRC intervention. A CAL was issued in March 1988 specifically related to training issues and another was issued on July 24, 1988 to include broader aspects of corrective actions needed prior to restart. By way of the CALs, you agreed to develop and implement a comprehensive "Restart Action Plan," which was reviewed and approved by the NRC, and to not restart NMP1 without prior NRC concurrence. In addition, extensive and comprehensive changes are in the process of being implemented. These changes include the extensive management and organizational changes within the Nuclear Division, senior management's commitment to improving the NMPC organization's ability to promptly identify and correct existing problems, and the specific actions contained in your Restart Action Plan.

It is noted that although the violations that are the subject of this enforcement action were non-willful violations, most were identified by the NRC. After careful consideration, it was determined under the circumstances of this case that a civil penalty was not necessary to achieve remedial action.

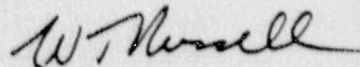
The NRC has also decided as a matter of discretion not to issue a notice of violation to NMPC or individual operators for the submittal of inaccurate information on the Form 398s. It is noted that the submittals occurred prior to February 1, 1988, the effective date of 10 CFR 50.9 and 10 CFR 55.9. These requirements require NMPC and the individual operators to ensure that all information provided to the NRC be accurate and complete in all material aspects. If inaccurate information had been submitted subsequent to that date, it would have formed the basis for a notice of violation of §50.9 for NMPC and of §55.9 for each of the thirteen individual operators for failure to submit complete and accurate information to the NRC. Therefore, we emphasize that any such submittal in the future could result in escalated enforcement action.

You are required to respond to this letter and the enclosed Notice and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to take to prevent recurrence. Further, you should describe the specific actions taken or planned to ensure that information submitted to the NRC by any NMPC representative is complete and accurate in all material ways. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation



cc w/encl:

C. V. Mangan, Senior Vice President  
J. Perry, Vice President, Quality Assurance Department  
W. Hansen, Manager, Corporate Quality Assurance  
R. G. Smith, Unit 2 Superintendent, Operations  
C. Beckham, Manager, Nuclear Quality Assurance Operations  
R. B. Abbott, Unit 2 Station Superintendent  
K. Dahlberg, Unit 1 Station Superintendent  
R. Randall, Unit 1 Superintendent, Operations  
J. Willis, General Station Superintendent  
C. Terry, Vice President Nuclear Engineering and Licensing  
J. F. Warden, New York Consumer Protection Branch  
Troy B. Conner, Jr., Esquire  
Gary D. Wilson, Senior Attorney  
John W. Keib, Esquire  
Director, Power Division, Department of Public Service, State of New York  
State of New York, Department of Law  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector  
State of New York

## NOTICE OF VIOLATION

Niagara Mohawk Power Corporation  
Nine Mile Point Unit 1

Docket No. 50-220  
License No. DPR-63  
EA 89-70

During several NRC inspections conducted between February 22, 1988 and February 17, 1989, as well as during an investigation by the NRC Office of Investigations, several violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action," 10 CFR Part 2, Appendix C (Enforcement Policy) (1988), the particular violations set forth below:

### I. VIOLATIONS ASSOCIATED WITH THE LICENSED OPERATOR REQUALIFICATION PROGRAM

- A. 10 CFR 50.54 (i-1) requires that the facility licensee have in effect a requalification program for licensed operators (operators or senior operators) that meets, at a minimum, the requirements of 10 CFR 55.59(c). 10 CFR 55.59(c)(1) requires that the requalification program, as developed by the licensee and approved by the NRC, be conducted for a continuous period not to exceed two years.

Contrary to the above, for the requalification program cycle of February 1986 to February 1988, portions of requalification training were not completed by thirty-nine (39) licensed operators. For example, classroom training, reading assignments and/or simulator training were not completed for those individuals.

- B. Technical Specification 6.8.1, Procedures, requires, in part, that written procedures and administrative policies shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Appendix A of Regulatory Guide 1.33, Quality Assurance Program Requirements-Operations. NRC Regulatory Guide 1.33, Appendix A, requires written procedures to establish various administrative controls. Facility Procedure NTP-11, Licensed Operator Retraining and Continuing Training, Revision 4 (effective September 11, 1987), requires that each license holder shall fully complete all required training for each requalification cycle, and that the station superintendent shall be notified for all cases where required training was not completed prior to the end of the requalification cycle.

Contrary to the above, the station superintendent was not notified of approximately 50% of the training that was not completed prior to the end of the February 1986 to February 1988 requalification cycle.

- C. 10 CFR Part 50, Appendix B, Criterion XVI, requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected.

Contrary to the above, a condition adverse to quality was not promptly corrected. Specifically, for the requalification cycle between February 1986 and February 1988, the requalification program was not properly implemented and documented. This condition adverse to quality was, in part, identified during two Safety Review and Audit Board (SRAB) audits of facility licensee training programs conducted in March 1986 and April 1987. The audits identified deficiencies in the documentation of training. However, measures did not exist to assure that this condition adverse to quality was promptly corrected by the end of the requalification cycle.

## II. VIOLATIONS OF OTHER REGULATORY REQUIREMENTS

- A. Technical Specification 6.8.1, Procedures, requires, in part, that written procedures and administrative policies shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Appendix A of Regulatory Guide 1.33, Quality Assurance Program Requirements-Operations. NRC Regulatory Guide 1.33, Appendix A, requires written procedures for combating emergencies and other significant events, such as a loss of coolant accident.

Contrary to the above, procedures in effect as of the October 7, 1988 NRC inspection, and written pursuant to Technical Specification 6.8.1, were not adequate for operation of the core spray system, as evidenced by the following examples:

1. Emergency Operating Procedure EOP-4, "Primary Containment Control," Revision 0, did not contain adequate instructions for maintaining torus water level within the normal operating band under post-LOCA Conditions. The procedure was inadequate in that the means for restoring torus water level following a LOCA would require the securing of one loop of the core spray system which is unacceptable in a LOCA condition where both core spray loops could be required.
  2. Procedure OP-2, Core Spray System, Section 1.2.4, Revision 17, did not adequately describe the actions to be taken by the operator in case annunciator K2-4-7 "Core Spray Pumps Discharge Pressure High" is activated. The procedure was inadequate in that it directs operators to secure both sets of core spray and topping pumps in the affected loop, but provides no directions to reinitiate the system once reactor pressure decreases below 365 psig and the isolation valves are opened to allow vessel injection.
- B. 10 CFR Part 50, Appendix B, Criteria III, states, in part, that measures shall be established to assure that applicable regulatory requirements and design basis are correctly translated into specifications, drawings, procedures, and instructions.



Contrary to the above, on several occasions, design basis information was not properly translated into operating, test, and safety system instructions, as evidenced by the following examples:

1. In 1978, the impellers for the two motor-driven feedwater pumps were replaced and the licensee's design process did not adequately translate the effects of this change into appropriate specifications, drawings, procedures, and instructions. Specifically the licensee's design process identified that the new impellers provided 200 feet less head at rated flow and 500 feet less head at maximum flow, but as of October, 1988 the design pump head curves were not updated to account for the new impeller performance characteristics.
  2. In 1984, changes were made to the Technical Specifications which raised the setpoint for the reactor vessel low-low-low level alarm. As of October 1988, two design documents (Drawing Number C-35843-C, Rev. 1, dated July 24, 1985 and Drawing Number C-18015-C, Rev. 87-039-C1, dated November 3, 1987) were not updated to reflect this change.
  3. In 1972, the power supplies for the reactor feedwater auxiliary oil pumps were moved from Motor Control Center (MCC) 151 to MC 1671. As of October 1988, the Electrical System Description document was not revised to show this change in power supply.
  4. In 1971, the original design of the core spray system (which had all safety-related 4160 VAC motors being stripped from Power Boards 102 and 103) was modified to have one core spray pump remain on each bus following an undervoltage condition. As of October 1988, Surveillance Test Procedure (NI-ST-R2) was not modified to reflect the change.
  5. Loss of Coolant Accident (LOCA) analysis, conducted between 1975 and 1987 pursuant to the requirements of 10 CFR 50, Appendix K (ECCS Evaluation Models), failed to translate into Technical Specifications for core spray system(s) assumptions that flow was available from two core spray loops.
- C. 10 CFR Part 50, Appendix B, Criterion XVI, requires, in part, that measures shall be established to assure that conditions adverse to quality such as deficiencies and nonconformances are promptly identified and corrected.

Contrary to the above, in September 1987, the licensee determined that continued operation of the plant with only one core spray loop operable, although authorized for seven days by Technical Specification LCO 3.1.4.d, would result in operation of the plant in an unanalyzed condition; however, these deficiencies were not corrected until August 23, 1988.

- D.1 10 CFR 50.72(b)(2)(iii) requires that the licensee notify the NRC as soon as practical and in all cases within four hours of any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to remove residual heat, control the release of radioactive material, or mitigate the consequences of an accident.

Contrary to the above, on August 23, 1988, the licensee determined that the Technical Specification Limiting Condition for Operation allowing continued plant operation for up to seven days with one core spray loop inoperable was a condition that could have prevented the fulfillment of the safety function of the core spray system to mitigate the consequences of an accident since the analysis to demonstrate compliance with 10 CFR Part 50, Appendix K, assumed that two core spray loops were always available in a LOCA. The licensee did not notify the NRC Operations Center of this condition until September 16, 1988.

- D.2 10 CFR 50.72(b)(1)(ii)(A) and (B), respectively, require that the licensee shall notify the NRC Operations Center within one hour of any event or condition during operation that results in the nuclear power plant being in an unanalyzed condition that significantly compromises safety, or in a condition during operation that results in the nuclear power plant being outside the design basis of the plant.

Contrary to the above, on December 9, 1987 and May 7, 1988, Load Flow/Voltage Drop calculations performed by the licensee during the design phase of a modification to the 125 volt DC Distribution System identified that the system was outside its design basis during operation because of low voltage provided by the system to operate safety related loads of selected panelboards. The NRC Operations Center was not notified of this condition until November 18, 1988.

- E. Technical Specification 4.2.6.b (Inservice Testing) requires, in part, that Inservice Testing (IST) of Quality Group A, B and C pumps and valves shall be performed in accordance with the requirements of Section XI of the ASME Boiler and Pressure Vessel Code as required by 10 CFR 50.55a(g). Section XI of the ASME Boiler and Pressure Vessel Code requires periodic testing to verify pump performance and valve stroke time.

Contrary to the above, as of October 26, 1988, deficiencies were identified in the Inservice Testing Program's (IST) first ten year interval which runs from December 1979 through December 1989. These deficiencies resulted in not all Quality Group A, B and C pumps and valves being incorporated into the first ten year interval IST Program, and, therefore, not being periodically tested.

- F. 10 CFR 50.71(e) requires, in part, that the licensee bring the original FSAR up to date within 24 months of July 22, 1980, to assure

NOTICE OF VIOLATION

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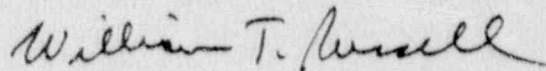
that the material contained in the FSAR contains the latest material developed.

Contrary to the above, as of October 1988, the FSAR had not been brought up to date to reflect changes to the facility as described in the original FSAR. Specifically, FSAR Figure IX-1 and associated text were not revised to reflect (1) a 1971 change to the core spray system load stripping sequence, and (2) a 1972 change to the power supplies for the reactor feedwater auxiliary oil pumps.

Violations I and II are categorized in the aggregate as a Severity Level III problem. (Supplement I)

Pursuant to the provisions of 10 CFR 2.201, Niagara Mohawk Power Corporation is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 22<sup>nd</sup> day of September 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406  
August 9, 1989

Docket No. 50-352  
License No. NPF-39  
EA 89-145

Philadelphia Electric Company  
ATTN: Mr. C. A. McNeill, Jr.  
Executive Vice President  
Nuclear  
Correspondence Control Desk  
P. O. Box 7520  
Philadelphia, PA 19101

Gentlemen:

Subject: NOTICE OF VIOLATION (Inspection Report Number 50-352/89-14)

This letter refers to the special NRC Inspection conducted on June 29, 1989 at the Limerick Nuclear Generating Station, Unit 1, Sanatoga, Pennsylvania to review the circumstances associated with an incident involving the transport of contaminated waste from Limerick Unit 1 to the Quadrex Recycle Center in Oak Ridge, Tennessee on June 20, 1989. The shipment arrived at Oak Ridge with external radiation levels in excess of the regulatory limit at the surface of the transportation vehicle. The event, which was identified to you by the vendor and subsequently reported to the NRC by your staff, constitutes a violation of NRC requirements. The report of the inspection was sent to you on July 11, 1989. On July 17, 1989, an enforcement conference was held with Mr. G. Leitch and other members of your staff to discuss the violation, its causes, and your corrective actions.

The violation, which is described in the enclosed Notice of Violation, occurred when a SeaVan was shipped from Limerick to the Quadrex Recycle Center, and upon receipt of the SeaVan at Quadrex, a radiation level of 250 mR/hr was found on the external surface at the bottom of the trailer used to transport the SeaVan. The SeaVan, which contained bagged radioactive waste and a B-25 container holding a Reactor Water Cleanup Pump impeller, was surveyed by your staff prior to shipment. The survey identified a maximum contact reading on the bottom of the trailer of 190 mR/hr, which is within 5% of the regulatory limit. The NRC is concerned that, even though the instrument used to perform the survey had a manufacturer's specified linearity of response of  $\pm 15\%$ , which raised the potential for contact readings in excess of regulatory limits, the shipment was allowed to go forward without adequate assurance that the radiation levels were within the regulatory limit of 200 mR/hr. Your transportation procedure was not effective in precluding this shipment of radioactive material with contact radiation level readings in excess of regulatory limits. The procedure did not consider instrument error and calibration when measuring the radiation levels approaching regulatory limits. This matter indicates that there was inadequate control over shipping of packages.

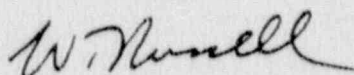
In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C, Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violation in the enclosed Notice has been categorized as a Severity Level III violation. A civil penalty is normally considered for Severity Level III violations. However, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, I have decided that the civil penalty will be mitigated in its entirety due to your past performance in the area of transportation. The other mitigation and escalation factors described in the Enforcement Policy were considered but none warranted additional adjustment to the civil penalty.

You are required to respond to this letter and the enclosed Notice, and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is needed to ensure compliance with regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation

cc w/encl: See next page

cc w/encl:

J. S. Kemper, Sr., Senior Vice President - Nuclear Construction  
G. M. Leitch, Vice President - Limerick Generating Station  
S. J. Kowalski, Vice President - Nuclear Engineering  
D. R. Helwig, General Manager - Nuclear Services  
M. J. McCormick, Jr., Manager - Limerick Generating Station  
W. T. Ullrich, Manager - Limerick Unit 2 Startup  
A. S. MacAinsh, Manager - Limerick Quality Division  
G. A. Hunger, Jr., Director - Licensing Section  
T. B. Conner, Jr., Esquire  
E. J. Bradley, Esquire, Assistant General Counsel  
H. D. Honan, Branch Head - Nuclear Engineering Licensing  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector  
Commonwealth of Pennsylvania



NOTICE OF VIOLATION

Philadelphia Electric Company  
Limerick Unit 1

Docket No. 50-352  
License No. NPF-39  
EA 89-145

During an NRC inspection conducted on June 29, 1989 to review the circumstances associated with the shipment of radioactive waste, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 55 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation is set forth below.

10 CFR 71.5(a) states, in part, that each licensee who transports licensed material outside of the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189. 49 CFR 173.441(b)(2) states, in part, that a package which exceeds the radiation level limits specified in paragraph (a) of that section shall be transported by exclusive use shipment only and the radiation levels for such shipment must not exceed 200 millirem per hour at any point on the outer surface of the vehicle, including the top and underside of the vehicle.

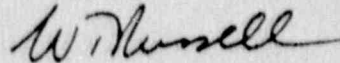
Contrary to the above, on June 20, 1989, the licensee shipped a SeaVan containing 736.64 millicuries of licensed material (in the form of bagged trash and contamination on a pump impeller blade), by exclusive use shipment on a trailer to the Quadrex Recycle Center in Oak Ridge, Tennessee. Upon receipt by the Quadrex Recycle Center on June 21, 1989, a survey determined the maximum surface reading on the underside of the trailer was 250 millirem per hour.

This is a Severity Level III violation. (Supplement V)

Pursuant to the provisions of 10 CFR 2.201, Philadelphia Electric Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include (1) the reasons for the violation if admitted, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may

be proper should not be taken. Consideration may be given to extending the response time for good cause shown.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 9<sup>th</sup> day of August 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

JUL 05 1989

Docket Nos. 50-338 and 50-339  
License Nos. NPF-4 and NPF-7  
EA 89-103

Virginia Electric and Power Company  
ATTN: Mr. W. R. Cartwright, Vice President,  
Nuclear Operations  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Gentlemen:

SUBJECT: NOTICE OF VIOLATION  
(NRC INSPECTION REPORT NOS. 50-338/89-08 AND 50-339/89-08,  
50-338/89-14 AND 50-339/89-14)

This refers to the Nuclear Regulatory Commission (NRC) inspections conducted on March 21 - April 17, April 25 - May 3, 1989, and April 18 - May 31, 1989, at the North Anna facility. The inspections included a review of the adequacy of service water supply to the safety-related recirculation spray system during accident conditions, and the facts and circumstances surrounding the Unit 1 reactor vessel level perturbations on April 26 and 27, 1989.

The reports documenting these inspections were sent to you by letters dated May 17, 1989, and June 29, 1989. As a result of these inspections, significant failures to comply with NRC regulatory requirements were confirmed, and accordingly, NRC concerns relative to the inspection findings were discussed in an Enforcement Conference held on May 24, 1989. The letter summarizing this Conference was sent to you on June 23, 1989.

Violation A of the enclosed Notice concerns the operability of the containment recirculation spray system. Your service water performance test conducted on April 14 and 24, 1989, for Units 1 and 2 respectively, showed actual service water flow to three of the eight recirculation spray heat exchangers (RSHX) to be below the design basis flow. The identification of the above problem follows your identification and correction, in 1988, of other problems which could have reduced the heat transfer capability of the RSHX, including biological fouling factors greater than those assumed in the design basis accident, and service water pump and component cooling water heat exchanger configurations that would have prevented achieving the designed service water flow to the RSHX during design basis accident conditions. These problems, combined with the most recent finding that the service water throttle valves were incorrectly adjusted, had the potential for preventing the recirculation spray system from performing its intended safety function and demonstrate that the plant staff did not have a proper understanding of the plant design basis.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), violation A described in the enclosed Notice has



JUL 05 1989

been classified as a Severity Level III violation. Normally, a civil penalty is assessed for a Severity Level III violation. However, in recognition of your identification of the problems and your extensive corrective actions, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director of Nuclear Material Safety, Safeguards, and Operations Support, I have decided that a civil penalty will not be proposed.

Violation B of the enclosed Notice involves your failure to provide adequate procedures to control the Unit 1 reactor vessel inventory during reactor vessel head purging operations. Although classified as a Severity Level IV violation, events such as this one can, under different circumstances, have potentially serious consequences.

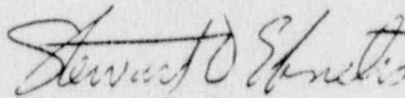
You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Public Law No. 96-511.

Should you have any questions concerning this letter, please contact us.

Sincerely,

  
Stewart D. Ebnetter  
Regional Administrator

Enclosure:  
Notice of Violation

cc w/encl:  
G. E. Kane, Station Manager  
R. F. Saunders, Manager - Nuclear  
Programs and Licensing  
Commonwealth of Virginia

NOTICE OF VIOLATION

Virginia Electric Power Company  
North Anna Units 1 and 2

Docket Nos. 50-338 and 50-339  
License Nos. NPF-4 and NPF-7  
EA 89-103

During the Nuclear Regulatory Commission (NRC) inspections conducted on March 21 - April 17, April 25 - May 5, and April 18 - May 31, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), the violations are listed below:

- A. Technical Specification (T.S.) 3.6.2.2 requires, in part, that the containment recirculation spray system shall be operable with four separate and independent containment recirculation spray subsystems, each composed of a spray pump, associated heat exchanger and flow path. With one containment recirculation spray subsystem inoperable, T.S. 3.6.2.2 requires the inoperable subsystem to be restored to OPERABLE status within 7 days or the unit shall be in at least HOT STANDBY within the next 6 hours and if not restored to OPERABLE status within the next 48 hours the unit shall be placed in COLD SHUTDOWN within the following 30 hours.

Contrary to the above, the following conditions singularly or in combination rendered the containment recirculation spray system inoperable and the affected unit was not placed in HOT STANDBY or COLD SHUTDOWN as required:

1. For an indeterminate period prior to April 1989, two of the four Unit 1 recirculation spray heat exchangers (RSHX) and one of the four Unit 2 RSHX would not have received the design basis service water flow of 4500 gpm as specified in Table 6.2.2 of the Updated Final Safety Analysis Report (UFSAR) due to incorrectly set throttle valves.
2. Maintaining all the RSHX for both units in wet layup from June 1987 to June 1988 resulted in higher heat transfer fouling factors than assumed in the UFSAR.
3. For an indeterminate period prior to October 1988, the RSHX, under design basis accident conditions, could have received less than the design basis service water flow in certain combinations of service water pumps and component cooling water heat exchangers.

This is a Severity Level III violation (Supplement I).

- B. Technical Specification 6.8.1.a requires written procedures be established, implemented, and maintained covering procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Regulatory Guide 1.33, Revision 2, February 1978 recommends written procedures for startup, operation, and shutdown of the reactor coolant system.

Contrary to the above, a Unit 1 reactor coolant system operating procedure for purging the reactor vessel head, 1-OP-11.3, was inadequate in that it did not preclude inadvertent lowering of reactor vessel level while purging

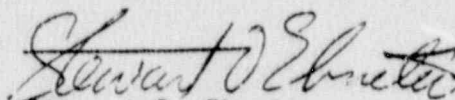
operations were in progress. On April 26 and 27, 1989, the routine diversion of reactor coolant system inventory from the primary drain transfer tank, during a vessel purge, caused inadvertent reductions in reactor vessel inventory.

This is a Severity Level IV violation (Supplement I).

Pursuant to the provisions of 10 CFR 2.201, Virginia Electric and Power Company is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

The response to the Director, Office of Enforcement, noted above should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region II and a copy to the NRC Resident Inspector, North Anna.

FOR THE NUCLEAR REGULATORY COMMISSION



Stewart D. Ebnetter  
Regional Administrator

Dated at Atlanta, Georgia  
this 5<sup>th</sup> day of July 1989



II.A. MATERIALS LICENSEES, CIVIL PENALTIES AND ORDERS



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

APR 10 1987

Docket No. 30-20866  
License No. 49-21496-01  
EA No. 87-41

A-1 Inspection, Inc.  
ATTN: G. W. Wyrick, President  
225 Lincoln  
Evanston, Wyoming 82930

Gentlemen:

SUBJECT: ORDER TEMPORARILY SUSPENDING LICENSE (EFFECTIVE IMMEDIATELY) AND  
ORDER TO SHOW CAUSE

Enclosed is an Order, effective immediately, suspending your byproduct material license. In addition, the Order requires that you show cause why your license should not be revoked.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

The responses directed by this letter and accompanying Order are not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

  
James M. Taylor, Director  
Office of Inspection and Enforcement

Enclosure: As Stated

cc:  
Wyoming Radiation Control Program Director

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
A-1 Inspection, Inc.  
225 Lincoln  
Evanston, Wyoming 82930

Docket No. 30-20866  
Licensee No. 49-21496-01  
EA No. 87-41

ORDER TEMPORARILY SUSPENDING LICENSE (EFFECTIVE IMMEDIATELY)  
AND ORDER TO SHOW CAUSE

I

A-1 Inspection, Inc., (licensee) 225 Lincoln, Evanston, Wyoming 82930 is the holder of a Byproduct Material License issued by the Nuclear Regulatory Commission (NRC/Commission) on August 26, 1986 pursuant to 10 CFR Part 30. The license is due to expire on May 31, 1989. The license authorizes the licensee to possess and use licensed materials (iridium-192 sources of up to 100 curies per source) in industrial radiography and replacement of sources in accordance with the conditions specified therein.

II

On December 4, 1984, an unannounced radiation safety inspection of licensed activities performed by an NRC Region IV inspector revealed that the licensee had not conducted its activities in full compliance with NRC requirements.

As a result of that inspection a Notice of Violation (NOV) was issued to the licensee on February 28, 1985. Among the violations identified in the NOV was the performance of radiography by an unauthorized individual, who, in so doing, received a whole body exposure in excess of that permitted by regulatory



requirements. In its response, the licensee admitted that it had allowed an individual not specifically named on the license to act as a radiographer, explaining that the violation occurred because there was not enough time during his employment to add this individual to its license. The licensee stated that in the future, it would not employ anyone until approved by the NRC and added to its license. By letter dated March 21, 1985, the licensee responded to the NOV. On March 26, 1985, the licensee paid the proposed civil penalty of \$500.

Subsequent to the above-described enforcement action, it was alleged to NRC that the licensee had again employed unauthorized personnel to conduct radiography operations at the Exxon LaBarge plant near Shute Creek, Wyoming. On February 27, 1986, an NRC Region IV inspector asked Mr. G. W. Wyrick, President of the licensee, if he presently had or ever had in the past employed individuals to conduct radiography at the Shute Creek job-site. Mr. Wyrick responded "no" to the questions. Later in a written statement given to an NRC Investigator on March 18, 1987, Mr. Wyrick admitted that he had employed an individual as an assistant radiographer and had allowed that individual to independently conduct radiography operations (i.e., function as a radiographer) on November 18-19, 1985.

Notwithstanding that the individual was not listed on the license, the licensee apparently made no attempt to assure itself (1) that the individual was previously qualified to do radiography, (2) that the individual was familiar with the device he used in conducting radiography in November, 1985, or (3) that the individual understood the operating and emergency procedure of the licensee. This individual was not listed on the NRC license as a radiographer or assistant

radiographer. Mr. Wyrick admitted that he had hired the subject assistant radiographer without amending his NRC license because the time delay involved in amending the license would have prevented the licensee from obtaining the job.

## III

The previous violation for the unauthorized radiography was intended to emphasize the need to comply with Commission requirements. Nevertheless, the licensee again permitted an unauthorized individual to conduct radiography in violation of condition 12 of its license and did so for the same reason as given in the previous violation, i.e., it was in the economic interest of the licensee to violate the requirement. This violation is significant because the performance of radiography without assurance that the individual is qualified including understanding of operating and emergency procedures could result in significant overexposures to himself or the public. Furthermore, the licensee, when questioned by the NRC, attempted to deceive the NRC regarding whether it had utilized the radiographer at the Shute Creek site.

The licensee's actions in disregarding requirements demonstrate that it is either unable or unwilling to comply with Commission requirements. Therefore, I lack the requisite reasonable assurance that the licensee will comply with Commission requirements in the future. Since continued conduct of licensed activities could pose a threat to the health and safety of the public, I have determined that the public health, safety and interest require that License No. 49-21496-01 be suspended, effective immediately, as described below.

I have further determined that pursuant to 10 CFR 2.201(c) and 2.202(f), no prior notice is required and that the suspension should be immediately effective pending further Order.

## IV

Accordingly, in view of the foregoing and pursuant to sections 81, 161b., 161i., 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Section 2.202 and 10 CFR Part 30, it is hereby ordered, effective immediately that:

- A. Activities authorized under License No. 49-21496-01 to receive and use byproduct material are suspended.
- B. The licensee shall place all byproduct material in its possession in locked storage or shall transfer such material to a person authorized to receive the material within five days and shall notify the NRC, Region IV office upon compliance.
- C. The licensee shall show cause in accordance with Section V of this Order why license No. 49-21496-01 should not be revoked.
- D. The Regional Administrator, Region IV, may relax or rescind any of the above provisions upon demonstration by the licensee of good cause.



## V

Pursuant to 10 CFR 2.202(b), the licensee may show cause by filing a written answer under oath or affirmation within twenty days after the date of issuance of this Order, setting forth the matters of fact and law on which the licensee relies. The licensee may answer this Order, as provided in 10 CFR 2.202(d), by consenting to the provisions specified in Section IV above. Upon the licensee's consent to the provisions set forth in Section IV of this Order, or upon failure of the licensee to file an answer within the specified time, the provisions specified in Section IV above shall be final without further Order.

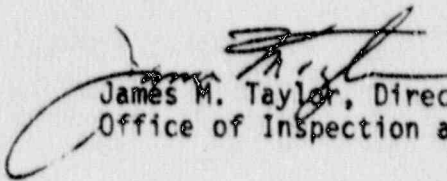
## VI

Pursuant to 10 CFR 2.202(b), the licensee may, in its answer filed under Section V, request a hearing. Any other person adversely affected by this Order may request a hearing within twenty days of its issuance. Any answer to this Order or any request for hearing shall be submitted to the Director, Office of Inspection and Enforcement, Nuclear Regulatory Commission, Washington, DC 20555. Copies shall also be sent to the Assistant General Counsel for Enforcement at the same address and to the Regional Administrator, Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011. If a person

other than the licensee requests a hearing, that person shall set forth with particularity the manner in which the petitioner's interest is adversely affected by this Order and should address the criteria set forth in 10 CFR 2.714(d). An answer to this Order or a request for hearing shall not stay the immediate effectiveness of this Order.

If a hearing is requested by the licensee or a person whose interest is adversely affected, the Commission will issue an Order designating the time and place of any hearing. If a hearing is held, the issue to be considered at such a hearing shall be whether this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
James M. Taylor, Director  
Office of Inspection and Enforcement

Dated at Bethesda, Maryland  
this 19 day of April, 1987.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

JUL 10 1989

Docket No. 030-20866  
License No. 49-21496-01  
EA No. 87-41

A-1 Inspection, Inc.  
ATTN. G.W. Wyrick  
President  
225 Lincoln Avenue  
Evanston, Wyoming 82930

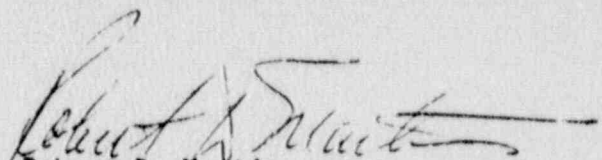
Gentlemen:

SUBJECT: TERMINATION OF LICENSE

This is to acknowledge receipt of a "Certificate of Disposition of Materials," from you dated May 6, 1989, and to inform you that NRC License No. 49-21496-01, issued to A-1 Inspection, Inc., has been terminated.

As you know, the NRC issued an order on April 10, 1987, suspending this byproduct material license and requiring you to show cause why the license should not be revoked. Although A-1 Inspection responded to this order in a letter dated April 27, 1987, the NRC deferred consideration of this matter pending the completion of an investigation of related matters conducted by the NRC's Office of Investigations.

In view of the fact that this license expired on May 31, 1989, and in view of the actions already taken in this case, the NRC has concluded that no purpose would be served by considering additional enforcement action. Therefore, I have been authorized to inform you that A-1's license is terminated effective on the date of this letter and that NRC's enforcement actions in this case are considered closed.

  
Robert D. Martin  
Regional Administrator

cc:  
Wyoming Radiation Control Program Director  
Utah Radiation Control Program Director





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
478 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406  
July 19, 1989

Docket No. 30-30670  
License No. 37-28240-01  
EA 89-113

Bucks Diagnostic Center  
ATTN: Raj S. Shah, M.D.  
1723 Woodburne Road  
Levittown, Pennsylvania 19057

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$500  
(NRC Inspection No. 89-001)

This letter refers to the NRC inspection conducted on March 1, 1989 at your facility in Levittown, Pennsylvania of activities authorized by NRC License No. 37-28240-01. This was the first inspection conducted of this license, which was issued August 31, 1988. The inspection report was sent to you on May 26, 1989. During the inspection, several violations of NRC requirements were identified. On June 15, 1989, an enforcement conference was conducted with you and members of your staff to discuss the violations, their causes, and your corrective actions.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty, include, but are not limited to: (1) the failure to adequately perform, evaluate, and maintain records of, certain instrument calibration checks (for constancy and linearity) as required by the terms of your license; (2) failure on several occasions to perform certain required surveys of packages containing radioactive material and areas where radioactive material is used; (3) failure to check survey meters with a check source each day of use; (4) failure to perform required inventories of sealed sources; and (5) failure to provide adequate training to individuals performing licensed activities at your facility.

The NRC is particularly concerned that these violations were identified only six months after this license was issued on August 31, 1988, at a time when the requirements of the license should have been clearly understood and properly implemented. Nonetheless, your technologist was not fully trained and did not fully understand the regulatory requirements, thereby resulting in violations of these requirements. Furthermore, adequate attention and oversight of licensed activities was not provided by the Radiation Safety Officer to detect these violations, which went undetected until the NRC inspection.

Although a Confirmatory Action Letter was issued to you on March 2, 1989, and prompt and extensive corrective actions were taken once the violations were identified, these violations demonstrate the importance of (1) initial training and periodic retraining of personnel, and (2) maintaining management

attention and oversight of the radiation safety program to ensure activities are conducted safely and in accordance with the terms of the license. To emphasize this need, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of Five Hundred Dollars (\$500) for the violations described in the Notice.

Although the violations, if considered individually, would normally be classified at Severity Levels IV and V, the violations described in the Notice have been classified in the aggregate as a Severity Level III problem, in accordance with Section C.8 of Supplement VI of the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy). These violations have been aggregated to focus on the underlying NRC concern, namely, a lack of proper management attention to license responsibilities. The base civil penalty amount for a Severity Level III violation or problem is \$500. The escalation and mitigation factors set forth in the policy were considered. In this case, escalation of the base civil penalty by 50% is considered appropriate because the violations were identified by the NRC, and you should have been aware of the violations sooner if the RSO had appropriately monitored the program. Mitigation of the base civil penalty by 50% is also considered appropriate because of your prompt and extensive corrective actions. The other escalation/mitigation factors were considered, and no further adjustment is considered appropriate. Therefore, the net result is no change in the base civil penalty.

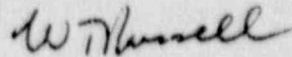
You are required to respond to this letter and the enclosed Notice, and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. Furthermore, you should describe the actions taken or planned to improve the oversight of the program by the Radiation Safety Officer. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further action is needed to ensure compliance with regulatory requirements.

We wish to emphasize that a license to use byproduct material is a privilege granted by the NRC, and any recurrent violation of the terms of that license may result in more significant enforcement action, such as higher civil penalties, or modification, suspension or revocation of that license.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/encl:  
Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
Commonwealth of Pennsylvania



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Bucks Diagnostic Center  
Levittown, Pennsylvania

Docket No. 30-30670  
License No. 37-28240-01  
EA 89-113

During an NRC inspection conducted on March 1, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. 10 CFR 19.12 requires, in part, that all individuals working in a restricted area be instructed in the purposes and functions of protective devices employed, and in the applicable provisions of the Commission's regulations and licenses.

Contrary to the above, as of March 1, 1989, the technologist who worked in the nuclear medicine department, a restricted area, had not been instructed in the purposes and functions of protective devices employed, and the applicable provisions of the regulations and the conditions of the license. For example, the technologist had not received adequate training in the operation and use of the instrument utilized for the evaluation of contamination wipe samples, and when interviewed on March 1, 1989, stated that he had not received any specific training from the Radiation Safety Officer with respect to the requirements of the NRC regulations or the conditions of the licensee's NRC license.

- B. 10 CFR 20.205(b)(1) requires that each licensee, upon receipt of a package of radioactive material, monitor the external surfaces of the package for radioactive contamination caused by leakage of the radioactive contents, unless specifically exempted by 10 CFR 20.205(b)(1)(i)-(v).

Contrary to the above, as of March 1, 1989, packages of radioactive material (containing 500 millicuries of technetium-99m) were routinely received; however, wipe samples were not taken to monitor the external surfaces of these packages for radioactive contamination, and these packages were not specifically exempted by 10 CFR 2.205 (b)(1)(i)-(v).

- C. 10 CFR 35.50(b)(1) requires the licensee to check the dose calibrator for constancy at the beginning of each day of use with a dedicated check source on a frequently used setting.

Contrary to the above, on January 4, 11, 18 and 25, 1989, and February 1, 8, 15 and 21, 1989, a dose calibrator was used to measure patient doses and the dose calibrator constancy check was not completed in that the measured activity of the dedicated check source was not compared to the known activity of the check source (corrected for decay) to determine the percentage of error of the dose calibrator reading.

- D. 10 CFR 35.50(b)(3) requires the licensee to test the dose calibrator for linearity upon installation and quarterly thereafter.

Contrary to the above,

1. On September 7, 1988, the dose calibrator had been installed and was used for the assay of patient doses, yet the evaluation of the dose calibrator linearity (which began on September 7, 1988) was not completed until September 9;
  2. The licensee failed to perform a dose calibrator linearity test between September 9, 1988 and January 20, 1989, a period of time in excess of the quarterly requirement, and the dose calibrator was used to assay patient doses on January 4, 11, and 18, 1989; and
  3. As of March 1, 1989, the dose calibrator linearity test of January 20, 1989 had not been completed in that the measured activity readings had not been compared to the known activity (corrected for decay) to determine the percentage of error of the dose calibrator readings. For example, the NRC inspector found that the measurement recorded on January 20 at 12:00 was 1.0 millicurie compared to the known activity (corrected for decay) of 1.17 millicuries, indicating an instrument error of approximately 15%. Licensee personnel were not aware of this nonlinear instrument performance and had not established a mathematical correction factor to comply with 10 CFR 35.50(d).
- E. 10 CFR 35.50(e) requires, in part, that records of dose calibrator accuracy, geometry, and linearity tests include the signature of the Radiation Safety Officer (RSO).

Contrary to the above, as of March 1, 1989, the records of dose calibrator accuracy, geometry and linearity tests did not include the required signature by the RSO.

- F. 10 CFR 35.53(a) and (c) require the licensee to measure and record the activity of each radiopharmaceutical dosage that contains more than 10 microcuries of a photon-emitting radionuclide before medical use.

Contrary to the above, as of March 1, 1989, doses of approximately 20 millicuries of technetium-99m (a photon-emitting radionuclide) were routinely administered to patients, and the activity of the doses was not recorded.

- G. 10 CFR 35.59(g) requires, in part, that a quarterly inventory be conducted of sealed sources in the possession of the licensee.

Contrary to the above, between September 7, 1988 (the date that licensed activities began) and March 1, 1989, inventories of sealed sources in the licensee's possession had not been conducted.

- H. 10 CFR 35.70(e) requires that licensees survey for removable contamination once each week all areas where radiopharmaceuticals are routinely prepared for use, administered, or stored.

Contrary to the above, as of March 1, 1989, surveys for removable contamination were not being performed once each week in some areas where radiopharmaceuticals were routinely prepared for use, administered, and stored. Specifically, for the nuclear medicine room and the adjacent laboratory, surveys were not performed for three weeks in September 1988, three weeks in October 1988, two weeks in January 1989, and two weeks in February 1989.

- I. 10 CFR 35.51 requires, in part, that the licensee: 1) conspicuously note on each survey instrument the apparent exposure rate from a dedicated check source as determined at the time of calibration, and 2) check each survey instrument with the dedicated check source each day of use.

Contrary to the above, as of March 1, 1989, survey meters were routinely being used without having been checked with a dedicated check source and were not labelled with the apparent exposure rate from a dedicated check source.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - \$500 (assessed equally among the 9 violations).

Pursuant to the provisions of 10 CFR 2.201, Bucks Diagnostic Center is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.



Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation(s) listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION

*W Russell*

William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 19<sup>th</sup> day of July 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
476 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406  
April 5, 1989

Docket No. 30-30810  
License No. 08-28277-01  
EA 89-27

Christian E. Chinwuba, M.D.  
Southwest Imaging Center  
667 E Street, S.W.  
Washington, D.C. 20024

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC Inspection No. 89-001)

This letter refers to the NRC inspection conducted on January 26, 1989 at your facility in Washington, D.C. of activities authorized by NRC License No. 08-28277-01. This was the first inspection conducted of this license which was issued on December 8, 1988. The inspection report was sent to you on February 14, 1989. During the inspection, violations of NRC requirements were identified. On February 21, 1989, an enforcement conference was conducted with you to discuss the violations, their causes, and your corrective actions.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty, include, but are not limited to: (1) the failure to adequately perform certain instrument calibration checks (for constancy and linearity) as required by the terms of your license; (2) failure to provide adequate training to individuals performing licensed activities at your facility; (3) failure to establish certain procedures for performing those licensed activities, as required by the terms of your license; and (4) failure by the Radiation Safety Officer to ensure that the radiation safety activities were being performed in accordance with approved procedures and regulatory requirements.

The NRC is concerned that these violations were identified so soon after this license was issued on December 8, 1988, and therefore, the requirements of the license should have been clearly understood and properly implemented. Nonetheless, use of licensed materials (for a diagnostic study of a patient) commenced on January 12, 1989 without all conditions of the license being implemented, and without possession of all required instrumentation (survey meter and check source) necessary to implement these requirements. In fact, although a check of the dose calibrator prior to the study indicated an erroneous response, the study was nonetheless conducted without the discrepancies first being corrected.

Although a Confirmatory Action Letter was issued to you on January 27, 1989, and comprehensive corrective actions have been taken, as described at the enforcement conference, these violations nonetheless demonstrate the need for maintaining increased and improved management attention and oversight of the radiation safety program to ensure activities are conducted safely and in accordance with the terms of the license. To emphasize this need, I have been

authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Two Hundred Fifty Dollars (\$250) for the violations described in that Notice.

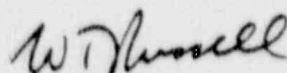
In accordance with Section C.8 of Supplement VI of the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violations described in the Notice have been classified in the aggregate as a Severity Level III problem as they represent a breakdown in control of licensed activities based on a significant lack of attention in the use of licensed materials. The base civil penalty amount for a Severity Level III violation or problem is \$500. The escalation and mitigation factors set forth in the policy were considered, and the base civil penalty amount has been mitigated by 50% based on your prompt and comprehensive corrective actions once these violations were identified, including the stopping of operations when you identified (prior to the NRC inspection) one of the violations involving linearity and accuracy determinations on the dose calibrator. No further mitigation for identification is appropriate because the other violations were identified by the NRC. The other escalation/mitigation factors were considered and no further adjustment is considered appropriate.

You are required to respond to this letter and the enclosed Notice, and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further action is needed to ensure compliance with regulatory requirements. Furthermore, we emphasize that a license to use byproduct material is a privilege granted by the NRC, and any recurrent violation of the terms of that license may result in more significant enforcement action, such as higher civil penalties, or modification, suspension or revocation of that license.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Christian E. Chinwuba  
Southwest Imaging Center  
Washington, D.C.

Docket No. 30-30810  
License No. 08-28277-01  
EA 89-27

During an NRC inspection conducted on January 26, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. 10 CFR 35.21(b)(2) requires that the Radiation Safety Officer shall establish, collect in one binder or file, and implement written policy and procedures for the operation of the radiation safety program.

Contrary to the above, as of January 26, 1989, the Radiation Safety Officer had not collected in one binder or file nor implemented written policy and procedures for the operation of the radiation safety program. A specific example is that the Radiation Safety Officer failed to establish and implement action levels for performing dose calibrator constancy checks as required by the dose calibrator calibration procedures referenced in the licensee's letter dated October 31, 1988, which is listed as a basis of the license by License Condition 13.

- B. 10 CFR 19.12 requires, in part, that all individuals working in a restricted area be instructed in the applicable provisions of the Commission's regulations and licenses.

Contrary to the above, as of January 26, 1989, the technologist working in the Nuclear Medicine Area, a restricted area, had not been instructed in the provisions of the regulations or the license.

- C. 10 CFR 35.59(d) requires that records of leak test results contain the model number, and serial number, if assigned, of each source tested, the identity of each source radionuclide and its estimated activity, the measured activity of each test sample expressed in microcuries, a description of the method used to measure each test sample, the date of the test, and the signature of the Radiation Safety Officer. A licensee shall retain such leakage test records for five years.

Contrary to the above, as of January 26, 1989, the record of the results of barium-133 leak tests performed on November 22, 1988 did not contain the signature of the Radiation Safety Officer and there was no record of the cesium-137 leak test results.

- D. 10 CFR 35.50(b)(2) requires that the accuracy of the dose calibrator be determined at installation and annually thereafter. 10 CFR 35.50(b)(3) requires that the linearity of the dose calibrator be determined at installation and quarterly thereafter.

Contrary to the above, as of January 12, 1989, the dose calibrator had been installed, but accuracy and linearity had not been determined. Specifically, initial testing of the dose calibrator on January 4-6, 1989 indicated an equipment malfunction in that accuracy and linearity testing revealed errors in excess of 10 percent, and repeat testing of the dose calibrator was not completed before initiation of a patient study on January 12, 1989.

- E. 10 CFR 35.51(c) requires that, each survey instrument be checked for proper operation with the dedicated check source each day of use.

Contrary to the above, as of January 12, 1989, a survey meter was used to perform required surveys without having been checked with a dedicated check source prior to use, since the licensee did not possess, nor did the instrument contain, a dedicated check source.

- F. 10 CFR 35.220 requires, in part, that licensees authorized to use byproduct material for imaging and localization studies possess a portable radiation measurement survey instrument capable of measuring dose rates over the range 1 millirem per hour to 1000 millirem per hour.

Contrary to the above, on January 12, 1989, the licensee, who was authorized for imaging and localization studies, did not possess a portable radiation measurement survey instrument capable of measuring dose rates over the range 1 millirem per hour to 1000 millirem per hour.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplements IV and VI).

Civil Penalty - \$250 (assessed equally among the violations)

Pursuant to the provisions of 10 CFR 2.201, Christian E. Chinwuba, M.D. is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

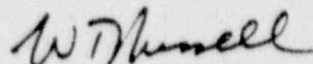
Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the six factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this *5<sup>th</sup>* day of April 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

JUL 07 1989

Docket No. 030-30810  
License No. 08-28277-01  
EA 89-27

Christian E. Chinwuba, M.D.  
Southwest Imaging Center  
667 E. Street, S.W.  
Washington, D.C. 20024

Dear Dr. Chinwuba:

Subject: ORDER IMPOSING A CIVIL MONETARY PENALTY - \$250

This letter refers to your letter dated May 12, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty sent to you with our letter dated April 5, 1989. Our letter and Notice described violations identified during NRC Inspection No. 89-001 conducted on January 26, 1989. The violations were classified in the aggregate as a Severity Level III problem and a civil penalty in the amount of Two Hundred Fifty Dollars (\$250) was proposed to emphasize the need for increased management control of licensed activities. The base civil penalty amount for a Severity Level III violation or problem is \$500. The escalation and mitigation factors in the Enforcement Policy were considered and the base civil penalty was reduced by 50% because of your prompt and extensive corrective actions once the violations were identified.

In your response to the Notice, you admit the occurrence of Violations A, B, C, and E, state "No Denial" in response to Violation D, and deny Violation F. Also, you request that the civil penalty be mitigated for reasons described in your response. After careful consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty, that additional mitigation of the amount of the civil penalty is inappropriate. Accordingly, we hereby serve the enclosed Order on Christian E. Chinwuba, M.D., Southwest Imaging Center, imposing a civil monetary penalty in the amount of Two Hundred Fifty Dollars (\$250).

You are required to respond to the enclosed Order, and you should follow the instructions specified therein when preparing your response.

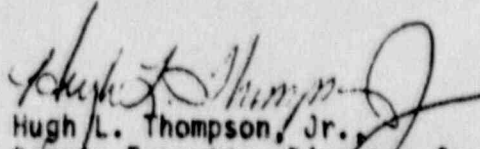
The responses directed by this letter and the enclosed Order are not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, PL 96-511.

Christian E. Chinwuba, M.D.

- 2 -

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

Sincerely,



Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards  
and Operations Support

Enclosures:

1. Order Imposing Civil Monetary Penalty
2. Appendix - Evaluation and Conclusion

cc w/encls:

Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
District of Columbia

UNITED STATES

NUCLEAR REGULATORY COMMISSION

In the Matter of

Christian E. Chinwuba, M.D.  
Washington, D.C.

)  
)  
)

Docket No. 30-30810  
License No. 08-28277-01  
EA 89-27

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Christian E. Chinwuba, M.D., Southwest Imaging Lab, Washington, D.C. ("licensee") is the holder of License No. 08-28277-01 ("license") issued by the Nuclear Regulatory Commission ("Commission" or "NRC") which authorizes the medical use of byproduct material by the licensee in accordance with the conditions specified therein. The license was issued on December 8, 1988 and is due to expire on December 31, 1993.

II

An NRC safety inspection of the licensee's activities under the license was conducted on January 26, 1989. During the inspection, the NRC staff determined that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty was served upon the licensee by letter dated April 5, 1989. The Notice states the nature of the violations, the provisions of the Nuclear Regulatory Commission's requirements that the licensee had violated, and the civil penalty amount for the violations. A response, dated May 12, 1989, to the Notice of Violation and Proposed Imposition of Civil Penalty, was received from the licensee.

III

Upon consideration of the answer received, the statements of fact, explanations, and argument for remission or mitigation of the proposed civil penalty contained



therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support has determined, as set forth in the Appendix to this Order, that the penalty proposed for the violations designated in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Two Hundred Fifty Dollars (\$250) within thirty days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

The licensee may, within thirty days of the date of this order, request a hearing. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. A copy of the hearing request shall also be sent to the Assistant General Counsel for Hearings and Enforcement, Office of the

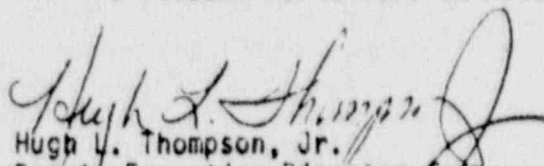
General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555,  
and to the Regional Administrator, Region I, 475 Allendale Road, King of  
Prussia, Pennsylvania 19406.

If a hearing is requested, the Commission will issue an Order designating the  
time and place of the hearing. If the licensee fails to request a hearing  
within thirty days of the date of this Order, the provisions of this Order  
shall be effective without further proceedings. If payment has not been made  
by that time, the matter may be referred to the Attorney General for  
collection.

In the event the licensee requests a hearing as provided above, the issues to  
be considered at such hearing shall be:

- (a) whether the licensee was in violation of the Commission's requirements as  
set forth in the Notice of Violation and Proposed Imposition of Civil  
Penalty referenced in Section II above; and
- (b) whether, on the basis of the violations set forth in the Appendix, this  
Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Hugh U. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards  
and Operations Support

Dated at Rockville, Maryland  
this 7<sup>th</sup> day of July 1989

## APPENDIX

### EVALUATION AND CONCLUSION

On April 5, 1989 a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations of a license issued to Christian E. Chinwuba, M.D., Southwest Imaging Center. The licensee responded to the Notice on May 12, 1989, admitting Violations A, B, C, and E in total, stating "No Denial" in response to Violation D, and denying Violation F in total. The licensee also requested further mitigation of the civil penalty. The NRC's evaluation and conclusion regarding the licensee's response are as follows:

#### I. Restatement of Violations

- A. 10 CFR 35.21(b)(2) requires that the Radiation Safety Officer shall establish, collect in one binder or file, and implement written policy and procedures for the operation of the radiation safety program.

Contrary to the above, as of January 26, 1989, the Radiation Safety Officer had not collected in one binder or file nor implemented written policy and procedures for the operation of the radiation safety program. A specific example is that the Radiation Safety Officer failed to establish and implement action levels for performing dose calibrator constancy checks as required by the dose calibrator calibration procedures referenced in the licensee's letter dated October 31, 1988, which is listed as a basis of the license by License Condition 13.

- B. 10 CFR 19.12 requires, in part, that all individuals working in a restricted area be instructed in the applicable provisions of the Commission's regulations and licenses.

Contrary to the above, as of January 26, 1989, the technologist working in the Nuclear Medicine Area, a restricted area, had not been instructed in the provisions of the regulations or the license.

- C. 10 CFR 35.59(d) requires that records of leak test results contain the model number, and serial number, if assigned, of each source tested, the identity of each source radionuclide and its estimated activity, the measured activity of each test sample expressed in microcuries, a description of the method used to measure each test sample, the date of the test, and the signature of the Radiation Safety Officer. A licensee shall retain such leakage test records for five years.

Contrary to the above, as of January 26, 1989, the record of the results of barium-133 leak tests performed on November 22, 1988 did not contain the signature of the Radiation Safety Officer and there was no record of the cesium-137 leak test results.

- D. 10 CFR 35.50(b)(2) requires that the accuracy of the dose calibrator be determined at installation and annually thereafter. 10 CFR 35.50(b)(3) requires that the linearity of the dose calibrator be determined at installation and quarterly thereafter.



Contrary to the above, as of January 12, 1989, the dose calibrator had been installed, but accuracy and linearity had not been determined. Specifically, initial testing of the dose calibrator on January 4-6, 1989 indicated an equipment malfunction in that accuracy and linearity testing revealed errors in excess of 10 percent, and repeat testing of the dose calibrator was not completed before initiation of a patient study on January 12, 1989.

- E. 10 CFR 35.51(c) requires that each survey instrument be checked for proper operation with the dedicated check source each day of use.

Contrary to the above, as of January 12, 1989, a survey meter was used to perform required surveys without having been checked with a dedicated check source prior to use, since the licensee did not possess, nor did the instrument contain, a dedicated check source.

- F. 10 CFR 35.220 requires, in part, that licensees authorized to use byproduct material for imaging and localization studies possess a portable radiation measurement survey instrument capable of measuring dose rates over the range 1 millirem per hour to 1000 millirem per hour.

Contrary to the above, on January 12, 1989, the licensee, who was authorized for imaging and localization studies, did not possess a portable radiation measurement survey instrument capable of measuring dose rates over the range 1 millirem per hour to 1000 millirem per hour.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplements IV and VI).

## II. Summary of License Response and NRC Evaluation

### A. Summary of Licensee Response Stating "No Denial" of Violation D

The licensee states that the tests on the dose calibrator had been carried out, but were being independently checked and verified and that the patient study was performed on the basis that "a cursory review of the test results . . . appeared fairly within allowable limits." The licensee also states that he was not sure that the equipment was functioning normally.

#### NRC Evaluation

The requirement to perform a test is not fulfilled until the test data is fully analyzed and a final result is obtained. This did not occur until January 13, 1989, when the final results of the dose calibrator accuracy and linearity tests indicated equipment malfunction, causing the licensee to discontinue patient studies. The violation occurred on January 12, 1989 as stated in the Notice because, on that date, the dose calibrator had been installed and was used by the licensee to calibrate a patient dose before the testing for accuracy and linearity was completed.

B. Summary of License Response Concerning Denial of Violation F

The licensee asserts that at the time of the inspection, (January 26, 1989) the NRC was aware that he possessed a Victoreen portable survey instrument which was being recalibrated in California.

NRC Evaluation

10 CFR 35.220 requires the licensee to have in its possession a portable radiation measurement survey instrument capable of measuring dose rates over the range of 1 millirem per hour to 1000 millirem per hour. At the time of the violation, the licensee owned such an instrument; however, the instrument was not in the licensee's possession. Rather, as the licensee states, this instrument was away in California for the purpose of being recalibrated. The violation occurred on January 12, 1989 as stated in the Notice because, on that date, the licensee administered a dose to a patient and at the time, he had in his possession only a loaner survey instrument which was not capable of measuring dose rates over the range of 1 millirem per hour to 1000 millirem per hour.

C. Summary of Licensee Response Requesting Further Mitigation of the Civil Penalty

The licensee, in his response, requests mitigation of the civil penalty because: (1) the violations were not willful, but stemmed from difficulty encountered by both he and his consultant in interpreting the new NRC regulations; (2) his corrective actions were extensive and sincere; (3) he has no prior enforcement history; and (4) he has incurred financial losses in implementing the corrective actions.

NRC Evaluation

While the existence of a willful violation may result in an increase in the severity level and consequent escalation of a civil penalty, the fact that a violation was not willful does not form a basis for mitigation of a civil penalty. Furthermore, rather than providing a basis for mitigation, the fact that neither the licensee nor his consultants understood the regulatory requirements and responsibilities associated with the license is additional evidence of an increased need for stronger management oversight and control of the program to ensure that licensed activities are carried out in conformance with license conditions and regulatory requirements.

The NRC recognizes and agrees with the licensee's response that his corrective actions were both prompt and extensive. On that basis, the NRC has already mitigated the base civil penalty by 50% in accordance with the enforcement policy. Full mitigation based on this factor alone is both inappropriate and not in accordance with the established enforcement criteria set forth in 10 CFR Part 2, Appendix C.

The NRC disagrees that the absence of any enforcement history regarding the licensee's facility provides a basis for further mitigation of the civil penalty. The enforcement policy provides for escalation of a civil penalty for a licensee with a poor enforcement history and conversely, for mitigation of a penalty for a licensee with a good enforcement history. However, since this was the first inspection of the licensee's facility, there is no enforcement history and there is no basis for either escalation or mitigation of the civil penalty.

Finally, the incursion of financial losses as a result of corrective actions to achieve regulatory compliance provides no basis for mitigation of a civil penalty. The cost of achieving and maintaining regulatory compliance is an operating cost borne by the licensee.

Accordingly, the licensee has not provided a basis for mitigation of the civil penalty.

### III. NRC Conclusion

The licensee did not provide a sufficient basis for withdrawal of Violation D or F, or for any additional mitigation of the amount of the civil penalty. Therefore, the NRC concludes that a civil penalty of \$250 should be imposed.





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

June 7, 1989

Docket Nos. 030-00302 and 030-02274  
License Nos. 24-00481-04 and 24-00481-05  
EA 89-92

Ellis Fischel State Cancer Center  
ATTN: Dr. Ronald G. Vincent  
Director  
115 Business Loop 70 West  
Columbia, Missouri 65201

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY-\$8000  
(NRC INSPECTION REPORTS NC. 030-00302/89001(DRSS) AND 030-02274/89001  
(DRSS))

This refers to the inspection conducted on April 4-5, 1989, at the Ellis Fischel State Cancer Center of activities authorized by NRC License Nos. 24-00481-04 and 24-00481-05. The report of this inspection was sent to you on May 12, 1989. During the inspection, violations of NRC requirements were identified. On April 25, 1989, an enforcement conference was conducted in the NRC Region III office with you and D. J. Noonan, Ph.D., Radiation Safety Officer, to discuss the violations, their causes, and your corrective actions.

The violations which are described in the enclosed Notice include: (1) replacing the Radiation Safety Officer without NRC authorization; (2) failure to measure thyroid burdens of individuals who prepared and administered therapy doses of iodine-131; (3) replacing the chairman of the Radiation Safety Committee without NRC approval; (4) failure to measure dose rates in restricted and unrestricted areas adjacent to patients who had received therapy doses of radioactive material; (5) failure to use a correction factor when measuring molybdenum-99 concentration in eluates; (6) failure to amend the NRC license before adding an area for storage of radioactive waste material; (7) failure of the Radiation Safety Committee to meet during the third quarter of 1988; (8) failure on one occasion to provide radiation exposure information to a radiation worker; (9) use of licensed material by an individual who was not authorized; (10) failure of a radiation monitor to indicate that a teletherapy source was partially exposed; (11) failure to check a teletherapy room radiation monitor for proper operation each day prior to patient treatment; and (12) failure to include certain required information in one radiation exposure record. These violations, when considered collectively, are indicative of a lack of management control and supervisory oversight of your nuclear medicine and teletherapy programs.

The NRC is particularly concerned that you relied on one individual to make your radiation safety and control program function rather than relying on a viable system to accomplish this task. After that individual left your institution, a major breakdown in the radiation safety program occurred. It

June 7, 1989

is important that your corrective actions address this concern and you should take whatever steps are necessary to ensure that, in the future, termination of key personnel will not compromise your radiation safety program.

To emphasize the importance of ensuring that in the future you will exercise greater control over all NRC licensed activities, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Material Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Five Thousand Dollars (\$5,000) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violations described in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem.

The base value of a civil penalty for a Severity Level III problem is \$2,500. The NRC enforcement policy allows for adjustment of a civil penalty under certain circumstances. In this case, the escalation and mitigation factors were considered and it was concluded that a 100 percent escalation of the base civil penalty was appropriate. This conclusion is based on the fact that the violations were identified by the NRC, but should have been identified by you, and that you had received prior notice of this type of management programmatic problem through the issuance of NRC Information Notice 88-10, "Materials Licensees: Lack of Management Controls Over Licensed Programs," dated March 10, 1988. While your corrective actions on the specific violations were good, your proposed corrective actions to prevent recurrence and ensure proper program management would not have resulted in timely long term corrective actions. We understand that you are taking actions to bolster staffing in your radiation safety program to ensure timely corrective action to prevent recurrence. In addition, although the previous NRC inspection on April 14, 1987, identified no violations, your radiation safety program has deteriorated since that time and the associated violations existed for an extended period of time. Therefore mitigation warranted for prior good performance was balanced against the escalation warranted due to the duration of these violations.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. In addition, your response should address the concerns raised on page 3 of our inspection report dated May 12, 1989. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

June 7, 1989

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

  
A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Report  
No. 030-00302/89001(DRSS); and  
No. 030-02274/89001(DRSS)

cc w/enclosures:  
Public Document Room  
Nuclear Safety Information Center (NSIC)  
State of Missouri



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Ellis Fischel State Cancer Center  
Columbia, Missouri

Docket Nos. 030-00302 and 030-02274  
License Nos. 24-00481-04 and 24-00481-05

As a result of an inspection conducted on April 4-5, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

I. License No. 24-00481-05

- A. 10 CFR 35.13(c) requires that a licensee apply for and receive a license amendment before it changes Radiation Safety Officers.

Contrary to the above, the licensee changed its Radiation Safety Officer on July 1, 1988, without receiving a license amendment and as a result, the licensee had no authorized Radiation Safety Officer during the period July 1, 1988, through January 25, 1989.

- B. 10 CFR 35.315 (a)(8) requires that, for each patient receiving radiopharmaceutical therapy and hospitalized for compliance with 10 CFR 35.75, a licensee measure the thyroid burden of each individual who helped prepare or administer a dosage of iodine-131 within three days after administering the dosage.

Contrary to the above, after patients received radiopharmaceutical therapy on April 25, May 20, August 3, September 21, October 19, and December 21, 1987, and were hospitalized for compliance with 10 CFR 35.75, the licensee failed to measure the thyroid burdens of individuals who helped prepare or administer dosages of iodine-131 within three days after administering the dosages.

- C. License Condition 19 of Amendment 35, issued May 26, 1983, requires the licensee use material in accordance with statements representations and procedures contained in a letter dated May 2, 1983. The letter dated May 2, 1983, states that Jose Pacheco, M.D., would be Chairman of the Radiation Safety Committee.

Contrary to the above, during the period February 22, 1985, through April 5, 1989, the licensee used material and the Chairman of the Radiation Safety Committee was an individual other than Jose Pacheco, M.D.

- D. 10 CFR 35.315(a)(4) requires that, for each patient receiving radiopharmaceutical therapy and hospitalized for compliance with 10 CFR 35.75, a licensee, promptly after administration of the dosage, measure the dose rates in contiguous restricted and unrestricted areas with a radiation measurement survey instrument to demonstrate compliance with the requirements of 10 CFR Part 20.

Contrary to the above, after patients received radiopharmaceutical therapy on April 25, May 20, August 3, September 21, October 19, and December 21, 1987, and were hospitalized for compliance with 10 CFR 35.75, the licensee failed to measure dose rates in restricted and unrestricted areas that were contiguous to the patients with a radiation survey instrument to demonstrate compliance with the requirements of 10 CFR Part 20.

- E. 10 CFR 35.204(b) requires that a licensee that uses molybdenum-99/technetium-99m generators for preparing a technetium-99m radiopharmaceutical measure the molybdenum-99 concentration in each eluate or extract.

Contrary to the above, the licensee did not correct for vial shielding effects and therefore failed to correctly measure the molybdenum-99 concentration in each eluate or extract prepared from its molybdenum-99/technetium-99m generators that were used during the period April 14, 1987, through April 5, 1989.

- F. 10 CFR 35.13(e) requires that a licensee apply for and receive a license amendment before it adds to or changes the areas of use identified in the application or on the license.

Licensee's application dated May 25, 1988, contains a diagram which identifies radioactive waste as being stored in Room No. 143.

Contrary to the above, the licensee failed to apply for and receive a license amendment before it added Room 26 as a radioactive waste storage area.

- G. 10 CFR 35.22(a)(2) requires that each medical institution licensee establish a Radiation Safety Committee to oversee the use of byproduct material and that the Committee must meet at least quarterly.

Contrary to the above, the licensee's Radiation Safety Committee failed to meet during the third quarter of 1988.

- H. 10 CFR 19.13(b) requires that, at the request of any worker, each licensee advise such worker annually of the worker's exposure to radiation or radioactive material as shown in records maintained by the licensee pursuant to 10 CFR 20.401(a) and (c).

Contrary to the above, on several occasions during the period April 14, 1987 through late February 1989, a radiation worker requested radiation exposure information as shown in records maintained by the licensee pursuant to 10 CFR 20.401(a) and (c) and the radiation worker was not advised of his radiation exposure.

II. License No. 24-00481-04

- A. License Condition No. 12.A of Amendment No. 31, dated June 5, 1988, designates Jose M. Sala, M.D. as the only authorized user.

Contrary to the above, during the period July 1, 1988 through January 25, 1989, two physicians not designated in License Condition 12.A functioned as authorized users.

- B. 10 CFR 35.615(d)(1) requires that the radiation monitor installed in each teletherapy room must provide visible notice of a teletherapy unit malfunction that results in an exposed or partially exposed source.

Contrary to the above, on April 4, 1989, an Eberline ESI-2 teletherapy room radiation monitor failed to provide visible notice of a Picker Model 6096A teletherapy unit malfunction that resulted in a partially exposed source.

- C. 10 CFR 35.615(d)(3) requires that the radiation monitor installed in each teletherapy room must be checked with a dedicated check source for proper operation each day before the teletherapy unit is used for treatment of patients.

Contrary to the above, during the period April 14, 1987, through April 5, 1989, the licensee failed to check two Eberline ESI-2 teletherapy room radiation monitors with a dedicated check source for proper operation on each day before the teletherapy units were used for treatment of patients.

- D. 10 CFR 20.401(a) requires that each licensee maintain records showing radiation exposures on Form NRC-5 in accordance with the instructions contained in that form, or on clear and legible records containing all the information required by Form NRC-5.



Form NRC-5 requires that the monitored individual's date of birth and social security number be recorded on the form.

Contrary to the above, during the period August 1988, through April 1989, the radiation exposure records maintained by the licensee did not contain the date of birth and the social security number of one of the individuals being monitored.

Collectively, these violations have been classified as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - \$5,000 (assessed equally among the violations).

Pursuant to the provisions of the 10 CFR 2.201, Ellis Fischel State Cancer Center (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective actions that have been taken and the results achieved; (4) the corrective actions that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

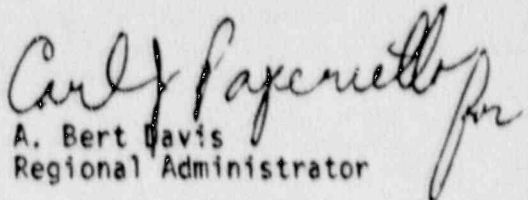
Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, IL 60137.

FOR THE NUCLEAR REGULATORY COMMISSION

  
A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 7th of June 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
789 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

August 25, 1989

Docket No. 40-00534  
License No. SMB-191  
EA 89-127

General Electric Company  
ATTN: Mr. Robert Mozgala  
General Manager, Lighting  
Production Division  
Nela Park  
Cleveland, Ohio 44112

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION  
OF CIVIL PENALTY - \$24,000  
(NRC INSPECTION REPORT NO. 040-00534/89001(DRSS))

This refers to the inspection conducted on June 1, 12, and 13, 1989 at the General Electric (GE) Company Lighting Business Group, Tungsten Products Plant, Cleveland, Ohio; Chemical Products Plant, Cleveland, Ohio; and the Ravenna Lamp Plant, Ravenna, Ohio of the activities authorized by Source Material License No. SMB-191. The report documenting the inspection and the enforcement conference was sent to you by letter dated July 19, 1989. During the inspection, the NRC identified numerous violations of NRC requirements and concerns. An enforcement conference to discuss the violations, concerns, causes, and corrective actions was held between Mr. R. Mozgala and other members of GE and Dr. C. J. Paperiello and others of my staff on July 12, 1989, in the NRC Region III office.

The NRC conducted this special inspection to assess corrective actions described in General Electric Company's (GE) letters to the NRC dated November 30, and December 5, 1988, in response to an NRC letter and Notice of Violation dated November 7, 1988, which described six violations and four areas of concern. The level of contamination in your facilities and lack of adherence to survey requirements identified during our inspection of June 1989 resulted in the issuance of a Confirmatory Action Letter (CAL) RIII-89-017, dated June 2, 1989, confirming certain actions to conduct surveys, decontaminate areas, develop procedures, conduct training, and develop a management audit plan. Several of the current violations identified are repetitive in nature indicating that GE has failed to take adequate corrective actions for known problems.

The ten violations described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) represent a significant breakdown in, and careless disregard for, the implementation of your radiation safety program. Also, the violations represent a significant failure to correct previously identified problems. During the previous NRC inspections conducted in

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED



August 25, 1989

September 1984 and August 1988, seven and six violations, respectively, were identified. The NRC expressed concern over the lack of management attention to certain radiation safety provisions following each of these inspections. GE was informed that escalated enforcement action would be considered if subsequent inspections revealed lack of management attention to these matters. The NRC is particularly concerned that although you provided us with planned corrective actions for the specific violations identified during the 1984 and 1988 inspections and for increased management oversight, the total number of violations increased and Violations C, F, G, and J in the enclosed Notice were identified as repetitive violations during this most recent inspection. As a result, it is clear that your past corrective actions have been ineffective in resolving your radiation safety problems. In addition, the NRC is especially concerned that Violations E, F, H, and I in the enclosed Notice resulted in indeterminate exposures to individuals working with thorium.

To emphasize the importance that licensees must place on radiation safety and control of licensed activities, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Twenty-Four Thousand Dollars (\$24,000) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989) (Enforcement Policy), the violations described in the enclosed Notice have been categorized as a Severity Level II problem.

The failure to adequately correct past violations, as well as the numerous other violations identified, demonstrate a serious breakdown in management control of your radiation safety program. While a breakdown in a licensee's program is usually classified at Severity Level III, GE's continued poor performance in carrying out its responsibilities to adhere to NRC requirements reflects a careless disregard for these NRC requirements and is the basis for categorizing these violations at Severity Level II. Interviews with your employees, including members of management, showed that they were aware of NRC requirements and previous NRC-identified violations, yet failed to adequately correct previous violations, follow license requirements, or implement an effective audit program to assure that the requirements of the license were being met.

The base value of a civil penalty for a Severity Level II violation is \$8,000. The escalation and mitigation factors in the Enforcement Policy were considered. The base civil penalty amount has been increased by 200% because the NRC identified all of the violations, your corrective actions were not timely or comprehensive, and your past performance has been poor as evidenced by the large number of violations identified in the 1984 and 1988 inspections.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. In particular, your response should describe in

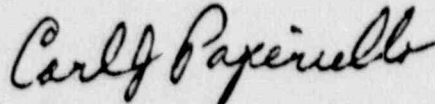
August 25, 1989

detail your complete management audit program and how the corrective actions proposed will be more effective than those for the past violations to assure lasting compliance with NRC requirements. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, Pub. L., No. 96-511.

Sincerely,



A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Report No. 040-00534/89001(DRSS)

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

General Electric Company  
Cleveland, Ohio

Docket No. 40-00534  
License No. SMB-191  
EA 89-127

During an NRC inspection conducted on June 1, 12, and 13, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. License Condition No. 19 requires that the licensee possess and use licensed material in accordance with statements, representations, and procedures contained in certain listed documents. A listed letter dated January 4, 1989, requires in Item 3.a. that once portable survey meters are received, weekly alpha contamination monitoring be conducted in specified areas at the Tungsten Products Plant, Chemical Products Plant and Ravenna Lamp Plant whenever licensed material is handled in those areas during that week.

Contrary to the above, although alpha survey meters were received at the Ravenna Lamp Plant and at the Tungsten Products Plant by April 1989, and thorium was handled from April 1989 to June 1, 1989, contamination monitoring was not conducted from April 1989 to June 1, 1989, in any of the specified areas. In addition, at the Chemical Products Plant, an alpha survey meter was received on February 15, 1989, and contamination monitoring was not conducted in any of the specified areas during the weeks of April 3 and May 22, 1989, when thorium was used.

- B. License Condition No. 19 requires that the licensee possess and use licensed material in accordance with statements, representations, and procedures contained in certain listed documents. A listed letter dated January 4, 1989, requires in Item 3.b. that all specified areas of the Tungsten Products, Chemical Products, and Ravenna Lamp Plants will be surveyed for removable alpha contamination once each month whenever thorium has been used in that area during that month.

Contrary to the above:

(1) removable alpha contamination surveys were not performed in any of the specified areas from January 1989 to June 1, 1989, at the Tungsten Products Plant and thorium was used in such areas every month.

(2) removable alpha contamination surveys were not performed in any of the specified areas at the Ravenna Lamp Plant from February 1989 to June 1, 1989, where thorium was used almost daily.



(3) removable alpha contamination surveys performed in the specified areas at the Chemical Products Plant, where thorium was used an average of three times each month, from February through June 1, 1989, were inadequate in that, although monthly contamination wipe samples were collected, they were not analyzed as of June 1, 1989.

C. License Condition No. 19 of Amendment Nos. 07 and 08 requires that the licensee possess and use licensed material in accordance with statements, representations, and procedures contained in certain listed documents.

1. Item 7 of a listed letter dated October 24, 1984, on Amendment No. 07, which remained in effect through January 17, 1989, requires, in part that the acceptable level for removable alpha contamination is 200 dpm/100 cm<sup>2</sup>.

Contrary to the above, on 19 occasions, from December 14, 1988 to January 17, 1989, at the Ravenna Lamp Plant and on seven occasions, from November 16 to December 13, 1988, at the Chemical Products Plant alpha contamination levels exceeded the acceptable level of 200 dpm/cm<sup>2</sup>.

2. A listed letter dated January 4, 1989, on Amendment No. 08, which became effective on January 18, 1989, requires in Items 3.c. and d. that if contamination levels exceed 2200 dpm per 100 cm<sup>2</sup>, corrective action will be taken and will include cleaning the area and resurveying to confirm the effectiveness of the decontamination.

Contrary to the above, at the Ravenna Lamp Plant, contamination levels exceeded 2200 dpm/100 cm<sup>2</sup> on three occasions during the period January 18 through February 1, 1989, and corrective action to lower the levels below 2200 dpm/100 cm<sup>2</sup> was not taken.

This is a repeat violation.

D. License Condition No. 19 requires that the licensee possess and use licensed material in accordance with statements, representations, and procedures contained in certain listed documents. A listed letter dated January 4, 1989, requires in Item 3.f. that during months when processing is being conducted, monthly removable contamination surveys will be conducted in areas adjacent to the processing areas, and these areas will be maintained at a contamination level of 22 dpm/100 cm<sup>2</sup>.

Contrary to the above, from January 18, 1989 to June 1, 1989, removable contamination surveys were not conducted in areas adjacent to the thorium processing areas during months when processing was conducted at the Ravenna Lamp Plant, the Chemical Products Plant, or the Tungsten Products Plant.

E. License Condition No. 19 requires that the licensee possess and use licensed material in accordance with statements, representations, and procedures contained in certain listed documents. A listed letter dated

January 4, 1989, requires in Item 3.g. that personnel who handle thorium in concentrated quantities will be required to perform personnel contamination surveys at the end of each day of use.

Contrary to the above, personnel who handled concentrated quantities of thorium at the Tungsten Products Plant and the Ravenna Lamp Plant did not perform personnel contamination surveys at the end of each day when thorium was used during the period from April 1989 to June 1, 1989. In addition, Chemical Products Plant personnel who handled concentrated quantities of thorium on April 3 and May 25, 1989, did not perform personnel contamination surveys at the end of the day.

- F. License Condition No. 15 of License Amendment No. 07, which remained in effect through January 17, 1989, required the licensee to conduct breathing-zone air sampling each time powdered thorium was processed.

Contrary to the above, powdered thorium was processed at the Chemical Products Plant on January 3 and 9, 1989 and breathing-zone air sampling was not conducted. In addition, with the exception of four occasions, breathing-zone air sampling was not conducted each time powdered thorium was processed at the Tungsten Products Plant from December 1, 1988 to January 17, 1989.

This is a repeat violation.

- G. License Condition No. 17 of License Amendment No. 07, which remained in effect through January 17, 1989, required the licensee to conduct contamination surveys of each powdered thorium processing area upon completion of processing the licensed material.

Contrary to the above, contamination surveys of each powdered thorium processing area were not conducted upon completion of processing licensed material. Specifically:

- (1) from December 1, 1988 through January 17, 1989, these surveys were not performed at the Tungsten Products Plant.
- (2) contamination surveys of each powdered thorium processing area at the Chemical Products Plant were not performed on January 3 and 9, 1989, when processing of licensed material was completed.
- (3) surveys performed of the thorium processing areas from December 1, 1988 through January 17, 1989 at the Ravenna Lamp Plant were inadequate in that, the analysis results of the surveys were not available until March 17, 1989.

This is a repeat violation.

- H. 10 CFR 20.201(b) requires that each licensee make or cause to be made such surveys as may be necessary for the licensee to comply with the regulations



and are reasonable to evaluate the extent of radiation hazards that may be present.

"Survey" is defined in 10 CFR 20.201(a) as an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

10 CFR 20.103 (a)(1) requires that licensees shall not possess, use, or transfer licensed material in such a manner as to permit any individual in a restricted area to inhale a quantity of radioactive material in any period of one calendar quarter greater than the quantity which would result from inhalation for 40 hours per week for 13 weeks at uniform concentrations of radioactive material in air specified in Appendix B, Table I, Column 1.

Contrary to the above, adequate surveys were not conducted to determine compliance with 10 CFR 20.103(a)(1). Specifically, surveys or evaluations were not conducted from February 2, 1989 to June 1, 1989, for persons who handled powdered thorium two or three times per week at the Ravenna Lamp Plant. In addition, adequate surveys were not conducted in 1987 and 1988 for persons who handled powdered thorium during cleaning and maintenance of thorium dust collection systems at the Ravenna Lamp Plant to determine their exposure to airborne concentrations of thorium. Surveys were inadequate, in that, in 1987 only one of the four persons involved was surveyed and in 1988 the results were lost and airborne concentrations inhaled could not be determined.

- I. 10 CFR 20.103(b)(1) requires, in part, the use of process or other engineering controls, to the extent practicable, to limit concentrations of radioactive materials in the air to levels below those which delimit an airborne radioactivity area as defined in 10 CFR 20.203(d)(1)(ii).

10 CFR 20.103(b)(2) requires, in part, that when it is impracticable to apply process or other engineering controls to limit concentrations of radioactive material in the air below those defined in 10 CFR 20.203(d)(1)(ii), other precautionary procedures, such as increased surveillance, limitation of working times, or provision of respiratory protective equipment be used to maintain intake of radioactive material by any individual within any period of seven consecutive days as far below that intake of radioactive material which would result from inhalation of such material for 40 hours at the uniform concentrations specified in Appendix B, Table I, Column 1, as is reasonably achievable. Whenever the intake exceeds this 40-hour control measure, the licensee shall make such evaluations and take such actions as are necessary to assure against recurrence.

Contrary to the above, during the weeks of January 2-6, January 9-13, January 16-20, and January 23-27, 1989, two employees at the Ravenna Lamp Plant were exposed to concentrations in excess of the 40-hour control measure and the licensee did not use adequate process or other engineering controls to limit the concentrations to below those specified; did not



apply other precautionary procedures such as increased surveillance, limitation of working times or provisions for respiratory protective equipment and did not make such evaluations or take such actions as were necessary to assure against recurrence.

- J. 10 CFR 20.203(d)(2) requires that each airborne radioactivity area be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words "Caution, Airborne Radioactivity Area." 10 CFR 20.203(d)(1) states that "airborne radioactivity area" means (i) any room, enclosure, or operating area in which airborne radioactive materials composed wholly or partly of licensed material, exist in concentrations in excess of the amounts specified in Appendix B, Table I, Column 1 of this part.

Contrary to the above, during January 1989, airborne radioactive concentrations in excess of the amount specified in Appendix B, Table I, Column 1, existed in the electrode coating area at the Ravenna Lamp Plant, and no "Caution Airborne Radioactivity Area" sign was posted.

This is a repeat violation.

Collectively, these violations have been classified as a Severity Level II problem (Supplement IV).

Cumulative Civil Penalty - \$24,000 (assessed equally among the violations).

Pursuant to the provisions of 10 CFR 2.201, General Electric Company (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps that have been taken and the results achieved; (4) the corrective steps that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with

Notice of Violation

- 6 -

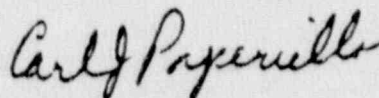
10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, Letter with Payment of Civil Penalty, and Answer to a Notice of Violation), should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 25 day of August 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
OLEN BLYN, ILLINOIS 60127

May 3, 1989

Docket No. 999-90003  
General License (10 CFR 31.5)  
EA 89-060

Grand Haven Board of Light  
and Power  
ATTN: Mr. E. Hughes  
General Manager  
1700 Eaton Drive  
Grand Haven, MI 49417

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC INSPECTION REPORT NO. 99990003/89001(DRSS))

This refers to the special safety inspection conducted on February 22, 1989, at the J. B. Sims Generating Station, Grand Haven, Michigan. The inspection was conducted in response to allegations received by this office concerning the inadequate storage of gauges containing byproduct material at your facility.

The findings of our inspection were forwarded to you on March 16, 1989. An enforcement conference was conducted with you and members of your staff on March 14, 1989 to discuss the apparent violations, causes, and your corrective actions to prevent recurrence.

The violations described in the enclosed Notice collectively demonstrate a breakdown in your control of radioactive material. Specifically, six violations were identified involving: (1) failure to have authorized and qualified individuals perform removal of gauges from their installed locations; (2) failure to perform source leak tests and device on-off mechanism tests at required intervals; (3) failure to maintain gauge labels legible; (4) failure to maintain records of byproduct material receipt; (5) failure to maintain records of device removals, and (6) failure to furnish a transfer report to the Commission. It appears that a major contributing cause of the violations is your failure to fully understand the conditions under which you acquired generally licensed material.

To emphasize the importance of maintaining adequate control over gauges containing radioactive material, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED



May 3, 1989

enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Five Hundred Dollars (\$500) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violations described in the enclosed Notice have been categorized at a Severity Level III.

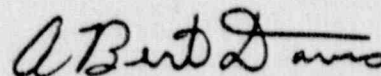
The base value of a civil penalty for a Severity Level III violation or problem is \$500. The escalation and mitigation factors in the Enforcement Policy were considered and no adjustment has been deemed appropriate.

You are required to respond to this letter and the enclosed Notice and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence focusing on those gauges which you still have in your possession or may possess in the future. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, Pub. L., No. 96-511.

Sincerely,



A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation and  
Proposed Imposition  
of Civil Penalty
2. Inspection Report  
No. 99990003/89001(DRSS)

See Attached Distribution

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Grand Haven Board of  
Light and Power  
J. B. Sims Generating Station  
Grand Haven, Michigan

Docket No. 999-90003  
General License (10 CFR 31.5)  
EA 89-060

During an NRC special safety inspection conducted on February 22, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. 10 CFR 31.5(c)(3) requires, in part, that any person who acquires, receives, possesses, uses or transfers byproduct material in measuring or gauging devices pursuant to a general license shall not remove such devices from installation unless such removal is performed: 1) in accordance with the instructions provided by the labels; or 2) by a person holding a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State to perform such activities.

Contrary to the above, on three separate occasions in 1987, licensee employees, who did not hold a specific license pursuant to 10 CFR Parts 30 and 32 or from an Agreement State, removed from installation generally licensed gauging devices containing byproduct material. On each of the three occasions this removal was performed contrary to the instructions provided by the labels.

- B. 10 CFR 31.5(c)(2) requires, in part, that a person who acquires, receives, possesses, uses or transfers byproduct material in measuring or gauging devices pursuant to a general license shall assure that the devices are tested for leakage of radioactive material and proper operation of the on-off mechanism and indicator, if any, at no longer than six month intervals or such other intervals as are specified in the label. Each of the labels for the devices specified a three year interval for testing.

1. Contrary to the above, between March 1983 and February 1989, five generally licensed Ohmart Corporation gauging devices containing nominal 50-150 millicurie cesium-137 sealed sources were neither leak tested nor tested to ensure the operability of the device on-off mechanism at the required three year intervals as specified by the label on each of the devices.
2. Contrary to the above, between May 1983 and June 1988 leak and on-off mechanism tests were not performed on one Kay-Ray gauge containing a nominal 100 millicurie cesium-137 sealed source.

- C. 10 CFR 31.5(c)(1) requires that any person who acquires, receives, possesses, uses or transfers byproduct material in measuring or gauging devices pursuant to a general license shall assure that all labels affixed to the device at the time of receipt and bearing a statement that removal of the label is prohibited are maintained thereon and shall comply with all instructions and precautions provided by such labels. The labels affixed to the devices state they are to be maintained on the device in a legible condition.

Contrary to the above, on February 22, 1989, the instructions and precautions provided by the labels on Ohmart Corporation devices containing byproduct material and bearing statements that removal of the labels are prohibited had not been maintained. Specifically, the labels were illegible, in that they were completely or partially covered with paint and other deposits.

- D. 10 CFR 30.51(a) and 30.51(c)(1) require that each person who receives byproduct material under a license issued pursuant to Part 31 keep records showing the receipt of such byproduct material for as long as the licensee retains possession of the byproduct material and for two years following transfer or disposal of the material.

Contrary to the above, as of February 22, 1989, the licensee failed to keep records of receipt for six generally licensed gauges containing byproduct material.

As of February 22, 1989, five of the gauges were in the possession of the licensee and one gauge was transferred to a disposal company in June 1988.

- E. 10 CFR 31.5(c)(4) requires, in part, that any person who receives, possesses, uses or transfers byproduct material in measuring or gauging devices pursuant to a general license maintain records of removal from installation involving the radioactive materials or its containment for two years from the date of removal or until the device is transferred or disposed of.

Contrary to the above, the licensee failed to maintain records of removal from installation for two generally licensed Ohmart gauges containing byproduct material containing 50-150 millicurie cesium-137 sealed sources that were removed in mid to late 1987 and which remained in the possession of the licensee as of February 22, 1989.

- F. 10 CFR 31.5(c)(8) requires, in part, that any person who receives, possesses, uses or transfers byproduct material in measuring or gauging devices pursuant to a general license furnish a written (transfer) report to the Commission within 30 days after transfer of the device to a specific licensee.



Contrary to the above, on June 8, 1988, the licensee transferred a generally licensed gauge containing byproduct material from its facility to an authorized disposal company for disposal and failed to furnish a written report to the Commission within 30 days of the transfer of the device.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplement VI).

Civil Penalty - \$500 (assessed equally among the violations).

Pursuant to the provisions of 10 CFR 2.201, Grand Haven Board of Power and Light (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective actions that have been taken and the results achieved; (4) the corrective actions that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an Order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an Order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may:

- (1) deny the violations listed in this Notice in whole or in part;
- (2) demonstrate extenuating circumstances; (3) show error in this Notice; or
- (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

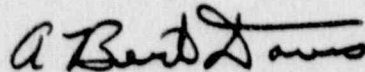
In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to

10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. Attention of the licensee is directed to the other provisions of 10 CFR regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been collected in accordance with the applicable provision of 10 CFR 2.205, this matter is referred to the Attorney General, and the penalty, unless compromised, or mitigated, may be collected by civil action pursuant to Section 2344 of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, IL 60137.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 3rd day of May 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 21 1989

Docket No. 999-90003  
General License  
EA No. 89-060

Grand Haven Board of  
Light and Power  
ATTN: Edward J. Hughes  
General Manager  
1700 Eaton Drive  
Grand Haven, MI 49417

Gentlemen:

SUBJECT: ORDER IMPOSING CIVIL MONETARY PENALTY - \$500

This refers to your letter dated May 25, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty sent to you by our letter dated May 3, 1989. Our letter and Notice described six violations identified during an NRC inspection conducted February 22, 1989 at the J. B. Sims Generating Station in Grand Haven, Michigan.

To emphasize the importance of maintaining adequate control over gauges containing radioactive material, a civil penalty of Five Hundred Dollars (\$500) was proposed for the violations.

In your response, you admitted the violations occurred, but requested mitigation of the civil penalty for reasons discussed.

We have given careful consideration to your request for mitigation of the proposed penalty and have concluded, for the reason described in the enclosed Appendix, that the penalty should not be mitigated. Accordingly, we hereby serve the enclosed Order on Grand Haven Board of Power and Light imposing a civil monetary penalty in the amount of Five Hundred Dollars (\$500). We will review the effectiveness of your corrective actions during a subsequent inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

Sincerely,

A handwritten signature in dark ink, appearing to read "Hugh L. Thompson, Jr.", written in a cursive style.

Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Enclosure: As stated



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
Grand Haven Board of  
Light and Power  
Grand Haven, MI 49417

)  
)  
)  
)

Docket No. 999-90003  
General License  
EA 89-060

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Grand Haven Board of Light and Power (licensee) is authorized to possess and use density/thickness gauges containing byproduct material pursuant to the general license provisions of 10 CFR 31.5. Pursuant to this authority the licensee possessed six byproduct material (cesium-137 sealed sources) gauging devices at its J. B. Sims Generating Station.

II

A special inspection of the licensee's activities was conducted on February 22, 1989 in response to allegations received by the NRC Region III office concerning the inadequate storage of gauges containing byproduct material at the J. B. Sims Station. The inspection disclosed that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty was served upon the licensee by letter dated May 3, 1989. The Notice states the nature of the violations, the provisions of the NRC requirements that the licensee had violated, and the amount of the civil penalty proposed for the violations. The licensee responded to the Notice of Violation and

Proposed Imposition of Civil Penalty by letter dated May 25, 1989. In its response the licensee admitted the violations and asked that the civil penalty be reduced.

III

After consideration of the licensee's response and the statements of fact and argument for reconsideration contained therein, the Deputy Executive Director for Nuclear Material Safety, Safeguards, and Operations Support has determined, as set forth in the Appendix to this Order, that the penalty proposed for the violations designated in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed.

IV

In view of the foregoing, and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

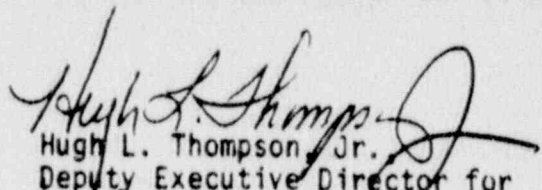
The licensee pay a civil penalty in the amount of Five Hundred Dollars (\$500) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. A copy of the hearing request shall also be sent to the Assistant General Counsel for Hearings and Enforcement, Office of General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issues to be considered at such hearing shall be whether, on the basis of such violation, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Dated at Rockville, Maryland,  
this 2<sup>nd</sup> day of August 1989



## APPENDIX EVALUATIONS AND CONCLUSIONS

On May 3, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations identified during an NRC inspection. Grand Haven Board of Light and Power responded to the Notice on May 25, 1989. In its response, the licensee admitted the violations as set forth in the Notice, but requested reconsideration of the civil penalty based on statements concerning their corrective actions. The NRC's evaluation and conclusion regarding the licensee's request for reconsideration of the civil penalty are addressed below.

### Summary of Licensee's Response

The licensee admitted the violations in the Notice. The licensee restated the corrective actions previously described in the NRC Inspection Report forwarded to them on March 16, 1989, and updated the implementation status of those corrective actions. The licensee also described in its May 25, 1989, letter some management controls it implemented to ensure long term correction of the violations. The licensee requested reconsideration of the civil penalty based on statements concerning initiation of corrective actions, followup of job responsibilities, and implementation of a preventative maintenance program to prevent recurrence of problems.

### NRC Evaluation of Licensee's Response

In determining the amount of civil penalty for the identified violations, the NRC evaluated the six factors for escalation and mitigation outlined in 10 CFR, Part 2, Appendix C (1989) (Enforcement Policy). Our conclusion that the base civil penalty of Five Hundred Dollars (\$500) should not be adjusted, was based on these six factors. The licensee focused its request for mitigation of the proposed civil penalty on the factor dealing with "Corrective Action to Prevent Recurrence." That factor recognizes that corrective actions are always required to meet regulatory requirements. In situations where the licensee acts promptly in taking very extensive corrective actions, including actions to prevent recurrence, the civil penalty may be mitigated 50 percent. In this case, while we recognize the final corrective actions appear adequate to prevent recurrence, the initial relocation of the gauges to a secure storage location was at the request (telephonic) of the NRC and the implementation of long term management controls to prevent recurrence occurred after discussion of the need for that type of control during the enforcement conference. Therefore, mitigation of the civil penalty, based on both the immediate and long term corrective actions taken, was not considered warranted.

### NRC Conclusion

An adequate basis for mitigation of the civil penalty was not provided by the licensee based on its corrective actions. Consequently, the proposed civil penalty in the amount of \$500 should be imposed.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
478 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

June 28, 1989

Docket Nos. 030-19752  
030-20466  
030-08985  
License Nos. 29-19769-02  
29-19769-03  
29-15364-01

EA 89-19

Isomedix, Inc.  
ATTN: George Dietz  
Vice President  
11 Apollo Drive  
Whippany, New Jersey 07981

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES  
- \$28,500  
(NRC Inspection Report Nos. 030-19752/87-02; 030-20466/87-01; and  
030-08985/87-01; and OI Synopses 1-87-019 and 1-88-005)

This letter refers to the NRC safety inspections conducted at your former facility in Parsippany, New Jersey on August 19 and 25, 1987 and at your facility in Northboro, Massachusetts on August 20, 1987. During the inspections, violations of NRC requirements were identified. During subsequent investigations by the NRC Office of Investigations (OI), the NRC determined that the violations involving the bypassing of safety interlocks were willful. On May 18, 1989, an enforcement conference was held in the Region I office with you and a member of your staff to discuss the violations, their underlying causes and your corrective actions.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties (Notice), involve: (1) willful operation of the Parsippany irradiator for three continuous periods of time in the past five years without the required radiation monitor interlock system in service (out for calibration); (2) willful operation of the Northboro irradiator on several occasions in the past with jumper cables installed, which resulted in a bypass of the ventilation system interlocks; (3) failure to perform the required monthly and weekly checks of the mechanical systems of the irradiators during certain periods between December 1986 and March 1987; and (4) failure to maintain records of the safety interlock checks during a five month period in 1986 and 1987.

The violations set forth in Section I of the enclosed Notice, involving the willful bypass of safety interlocks, are of particular concern to the NRC because systems designed to automatically protect individuals from the hazards of radiation or radiation-produced toxic gases would not have performed their intended functions, if called upon. Each period of time that the radiation monitor interlock system was bypassed is considered a separate

violation and was willful in that you knew that operation of the irradiator without the safety interlocks operable was not in accordance with the requirements set forth in 10 CFR 20.203(c)(6). The violation involving the bypassing of interlocks at the Northboro site was willful based on careless disregard, as Isomedix, Inc., should have known that bypassing those safety interlocks constituted a violation.

The bypassing of the radiation monitor interlock system at the Parsippany facility is significant because the interlock is designed to preclude the potential for individuals being exposed to lethal levels of radiation that the irradiator produced. The NRC recognizes that alternate safety procedures were utilized whenever the radiation monitor was removed and sent to the manufacturer for calibration, and another interlock system, namely, the source hoist cylinder interlock, was functional during these periods. However, the alternate procedures, which consisted of two individuals monitoring the area with separate survey meters, did not constitute an entry control device which functioned automatically to prevent inadvertent entry, and thus did not constitute compliance with the requirements set forth in 10 CFR Part 20.203(c)(6)(i).

Contributing to the NRC concern is the fact that an incident occurred at your Parsippany facility in 1974 involving an individual entering your hot cell while a radioactive source was unshielded without the required radiation monitor functioning properly. As a result, the individual received a 400 rem exposure. Additionally, you served on Subcommittee N43-3.4 of the American National Standards Institute (ANSI) which developed the standard, ANSI-N43.10-1984, "Safe Design and Use of Panoramic Wet Source Storage Gamma Irradiators (Category IV)," published in July 1984, requiring irradiators to possess a radiation monitor interlock system which functioned automatically to prevent inadvertent entry.

Of additional concern to the NRC is the fact that NRC Information Notice No. 87-29: Recent Safety-Related Incidents at Large Irradiators, issued on June 26, 1987, described an incident that occurred at a facility in New Jersey involving the intentional bypass of safety interlocks. The Notice emphasized the need to review the information provided and your procedures to ensure proper management actions at your facility. One of the specific incidents described in the Notice demonstrated the importance of not bypassing interlock systems or other safety systems. At the enforcement conference you acknowledged an awareness of the issue of bypassed interlocks at that New Jersey facility. Notwithstanding that prior notice, the interlock at Parsippany continued to be bypassed until identified by the NRC during the August 1987 inspection.

The NRC recognizes that the enforcement history at both the Parsippany and Northboro facilities has been good, as evidenced by the fact that no violations were identified during the past two inspections of each of these facilities. Nonetheless, in each case, you allowed alternate procedures to be used in lieu of the required interlocks. You knew, in the Parsippany case, that the alternate procedures did not constitute compliance with the requirement, and should have known in the Northboro case.

Although you subsequently closed the Parsippany facility, and the license was terminated on April 28, 1989, these violations demonstrate the need for strict adherence to regulatory requirements at all of your facilities to ensure safe



operation of these facilities. To emphasize this need, I have been authorized, after consultation with the Director, Office of Enforcement and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of Twenty-Eight Thousand Five Hundred Dollars (\$28,500) for the violations described in Section I of the enclosed Notice.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy), each of the three continuing periods of time that the radiation monitor interlock at the Parsippany site was inoperable is considered a separate violation and classified at Severity Level II in accordance with Section B.2 of Supplement VI of the Enforcement Policy, because a system designed to prevent or mitigate a serious safety event was inoperable. The significance of each violation is lessened since the source hoist cylinder interlock was operable and the alternate safety procedures, were being used; however, the significance was also heightened since each violation was willful. Therefore, on balance, categorization of each violation at a Severity Level II is appropriate.

The base civil penalty amount for each Severity Level II violation is \$8,000. The escalation and mitigation factors set forth in the enforcement policy were considered and no adjustment of the penalties deemed appropriate, except for Violation I.C, which was escalated 25%. The enforcement history at the Parsippany facility was good, and therefore, provides a basis for 100% mitigation of the base civil penalty for each violation. However, each time interval the violation occurred existed for at least a number of days, (the third interval existed over 80 days); therefore, based on the significant potential personnel hazard which existed when the irradiator was operated without a radiation monitor interlock system which would automatically prevent inadvertent entry, a 100% escalation of the base civil penalty based on duration is considered appropriate for each violation. For Violation I.C, an additional 25% escalation is appropriate as you had prior notice, as previously described of the need to not bypass interlocks, which should have caused you to review your procedures, recognize that bypassing the radiation monitor interlock system and using an alternate procedure was in violation of the NRC regulations, and shut down your operation until a radiation monitor interlock system which automatically prevented inadvertent entry was in place. Your corrective actions, although acceptable, were not considered prompt, and therefore, provide no basis for adjustment of the civil penalty amount. Specifically, the monitor was sent out for calibration in May 1987 and you were later informed that the monitor could not be calibrated and no similar system was available from the vendor. Nevertheless, you continued to operate without a replacement system and your facility was shut down only as a result of our inspection in August. Moreover, it took more than a year to conduct audits of your other facilities to determine whether similar issues were present. Therefore, on balance, mitigation based on your corrective action is not warranted for each violation. Accordingly, a civil penalty of \$8,000 is assessed for Violations I.A and I.B, and a civil penalty for \$10,000 is assessed for Violation I.C.

Violation II has been categorized as a Severity Level III violation. Normally, the violation would be classified at Severity Level IV based on low potential

for impacting the public's health and safety in that the interlock did not perform a direct radiological safety function, but rather assured ventilation of the cell to reduce the accumulation of toxic gases produced by intense radiation. However, since the violation was willful, the NRC has determined that a Severity Level III violation is appropriate.

The base civil penalty amount for a Severity Level III violation is \$5,000. The escalation and mitigation factors set forth in the enforcement policy were considered, and 50% mitigation of the base civil penalty was considered appropriate because: (1) the enforcement history at the Northboro facility has been good, and therefore, provides a basis for 100% mitigation of the penalty; (2) the violation involves multiple examples and, therefore, provides a basis for 50% escalation of the penalty; (3) corrective actions, which included eliminating the use of all jumper cables, although acceptable, were not considered prompt and extensive, in that, the root cause (rainwater in the ventilation system) for the use of the jumper cables has not been corrected and therefore, provides no basis for adjustment of the civil penalty amount. The result of application of these factors is a 50% mitigation of the base civil penalty to \$2500.

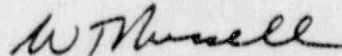
Violations III and IV of the enclosed Notice are classified at Severity Level IV and V respectively.

You are required to respond to this letter and the enclosed Notice, and should follow the instructions specified in the Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice including your proposed corrective actions and the results of future inspections, the NRC will determine whether further action is needed to ensure compliance with regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation and Proposed  
Imposition of Civil Penalties

cc:  
Public Document Room  
State of New Jersey  
Commonwealth of Massachusetts

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTIES

Isomedix, Inc.  
Whippany, New Jersey

Docket Nos. 030-19752  
030-20466  
030-08985  
License Nos. 29-19769-02  
29-19769-03  
29-15364-01  
EA 89-19

During NRC inspections conducted at the licensee's facility in Parsippany, New Jersey on August 19 and 25, 1987 and at the licensee's facility in Northboro, Massachusetts on August 20, 1987, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

VIOLATIONS ASSESSED CIVIL PENALTIES:

- I. 10 CFR 20.203(c)(6)(i) requires that each entrance or access point to an area (in which there may exist radiation levels in excess of 500 rems in one hour at one meter from a sealed radioactive source) must be equipped with entry control devices which function automatically to prevent any individual from inadvertently entering the area when such radiation levels exist.
  - A. Contrary to the above, for a period of time of at least one day prior to and after February 11, 1985, the access point to the irradiator room at the licensee's former irradiator facility in Parsippany, New Jersey (in which radiation levels existed in excess of 500 rems in one hour at one meter from a sealed radioactive source) was not equipped with an entry control device which functioned automatically to prevent an individual from entering the area. Specifically, during this time period, while the irradiator was operating, the required entry control device radiation monitor, which functions automatically to lock the entrance when excessive radiation levels are present, was not present and operating because it had been removed and sent for calibration without a replacement monitor being installed.

This is a Severity Level II violation. (Supplement IV)

Civil Penalty - \$8,000.



- B. Contrary to the above, for a period of time of at least one day prior to and after April 14, 1986, the access point to the irradiator room at the licensee's former irradiator facility in Parsippany, New Jersey (in which radiation levels existed in excess of 500 rems in one hour at one meter from a sealed radioactive source) was not equipped with an entry control device which functioned automatically to prevent an individual from entering the area. Specifically, during this time period, while the irradiator was operating, the required entry control device radiation monitor, which functions automatically to lock the entrance when excessive radiation levels are present, was not present and operating because it had been removed and sent for calibration without a replacement monitor being installed.

This is a Severity Level II violation. (Supplement IV)

Civil Penalty - \$8000.

- C. Contrary to the above, from May 29 to August 19, 1987, the access point to the irradiator room at the licensee's former irradiator facility in Parsippany, New Jersey (in which radiation levels existed in excess of 500 rems in one hour at one meter from a sealed radioactive source) was not equipped with an entry control device which functioned automatically to prevent an individual from entering the area. Specifically, during this time period, while the irradiator was operating, the required entry control device radiation monitor, which functions automatically to lock the entrance when excessive radiation levels are present, was not present and operating because it had been removed and sent for calibration without a replacement monitor being installed.

This is a Severity Level II Violation. (Supplement IV)

Civil Penalty - \$10,000.

- II. Condition 19 of License No. 29-19769-02 requires that the licensee possess and use licensed radioactive material at its facility in Northboro, Massachusetts in accordance with the statements, representations, and procedures contained in the license application dated May 24, 1982.

Section 4.6.1 of the license application dated May 24, 1982 requires that the proper operation of the irradiator ventilation fan be monitored by an air flow switch installed in the filter body such that if no air flow is indicated, the source is returned to the fully shielded position.

Contrary to the above, on August 20, 1987 and for an indeterminate number of times prior to that date (specifically, whenever water from heavy rainfall entered the ventilation system), no air flow was indicated in

the ventilation system and, because jumper cables were installed to bypass the interlock associated with the air flow switch, the source was not returned to the fully shielded position.

This is a Severity Level III violation. (Supplement VI)

Civil Penalty - \$2,500.

#### VIOLATIONS NOT ASSESSED A CIVIL PENALTY:

- III. Condition 20 of License No. 29-15364-01 required that the licensee possess and use licensed radioactive material at its former Parsippany facility in accordance with statements, representations, and procedures contained in the application dated December 20, 1985.

Item 7.2 of this application required that formalized weekly and monthly safety and maintenance related checks be performed on the mechanical systems of the irradiator.

Contrary to the above, the required monthly safety and maintenance related checks of the mechanical systems of the irradiator were not performed for January and February 1987, and the required weekly safety and maintenance related checks were not performed between December 17, 1986 and March 24, 1987.

This is a Severity Level IV violation. (Supplement VI)

- IV. 10 CFR 20.203(c)(6)(vii) requires that entry control devices required in accordance with 10 CFR 20.203(c)(6)(i) be tested with a source of radiation for proper functioning prior to initial operation on any day that operations are not uninterruptedly continued from the previous day, or before resuming operations after any interruptions, and records maintained of the date, time, and results of such tests.

Contrary to the above, records were not maintained of the safety interlock checks performed during the period from August 29, 1986 to February 1, 1987.

This is a Severity Level V violation. (Supplement IV)

Pursuant to the provisions of 10 CFR 2.201, Isomedix, Incorporated (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be

Notice of Violation

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taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, U.S.C. 2232, this response shall be submitted under oath or affirmation.

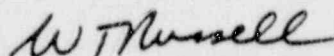
Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalties by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, or may protest imposition of the civil penalties in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalties will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation(s) listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties, such answer may request remission or mitigation of the penalties.

In requesting mitigation of the proposed penalties, the factors addressed in Section V.B. of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.201 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalties, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 28<sup>th</sup> day of June 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SEP 01 1989

Docket Nos. 030-19152  
030-20466  
030-08985  
License Nos. 29-19769-02  
29-19769-03  
29-15364-01  
EA 89-19

Isomedix, Inc.  
ATTN: George Dietz  
Vice President  
11 Apollo Drive  
Whippany, New Jersey 07981

Gentlemen:

Subject: ORDER IMPOSING CIVIL MONETARY PENALTIES -\$28,500

This letter refers to your letter dated July 26, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalties (Notice) sent to you by our letter dated June 28, 1989. Our letter and Notice described violations identified during NRC inspections conducted in August 1987, as well as subsequent investigations by the NRC Office of Investigation. The penalties were proposed to emphasize the need for strict adherence to regulatory requirements at all of your facilities to ensure safe operations at these facilities.

In your response to the Notice, you admit the occurrence of the violations but you request that the civil penalties be mitigated for reasons described in your response. After careful consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalties, that mitigation of the amount of the civil penalties is inappropriate. Accordingly, we hereby serve the enclosed Order on Isomedix, Inc. imposing civil monetary penalties in the amount of \$28,500. We will review the effectiveness of your corrective actions during a subsequent inspection.

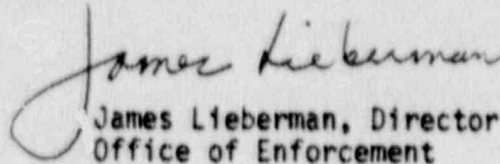
CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Isomedix, Inc.

-2-

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

Sincerely,

  
James Lieberman, Director  
Office of Enforcement

Enclosures:

1. Order Imposing Civil Monetary Penalties
2. Appendix - Evaluation and Conclusion

cc w/encls:

Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
State of New Jersey  
Commonwealth of Massachusetts

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
ISOMEDIX, INC.  
Whippany, New Jersey

} Docket Nos. 030-19752  
030-20466  
030-08985  
} License Nos. 29-19769-02  
29-19769-03  
29-15364-01  
} EA 89-19

ORDER IMPOSING CIVIL MONETARY PENALTIES

I

Isomedix, Inc., (licensee) is the holder of License Nos. 29-19769-02 and 29-19769-03 issued by the Nuclear Regulatory Commission (Commission or NRC) which authorizes the licensee to irradiate materials as a commercial service. The current licenses were issued on December 10, 1987 and October 20, 1988 and are due to expire on December 31, 1992 and October 31, 1993.

The licensee was also the holder of License No. 29-15364-01, which was last issued on May 30, 1986, which authorized the commercial irradiation of materials at their Parsippany, New Jersey facility. That license was terminated by the NRC on April 28, 1989 after the licensee closed the Parsippany facility on December 31, 1987, and requested termination of the license.

II

NRC safety inspections of the licensee's activities were conducted at the licensee's former facility in Parsippany, New Jersey on August 19 and 25,



1987, and at its facility in Northboro, Massachusetts on August 20, 1987. Further, investigations were also conducted by the NRC Office of Investigations subsequent to the inspections. The results of the inspections and investigations indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalties (Notice) was served upon the licensee by letter dated June 28, 1989. The Notice stated the nature of the violations, the provisions of the Nuclear Regulatory Commission's requirements that the licensee had violated, and the civil penalty amount for the violations. The licensee responded to the Notice of Violation and Proposed Imposition of Civil Penalties by letter dated July 26, 1989. In its response the licensee admitted the violations, however requested that the civil penalties be mitigated.

### III

After consideration of the licensee's response and the statement of fact, explanations, and argument for mitigation contained therein, the NRC staff has determined as set forth in the appendix to this Order that the penalties proposed for the violations designated in the Notice of Violation and Proposed Imposition of Civil Penalties should be imposed.

### IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay civil penalties in the amount of \$28,500 within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

V

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555. A copy of the hearing request shall also be sent to the Assistant General Counsel for Hearings and Enforcement, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 and to the Regional Administrator, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issue to be considered at such hearing shall be whether, on the basis of the admitted violations set forth in the Notice of Violation and Proposed Imposition of Civil Penalties referenced in Section II, above, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

*James Lieberman*

James Lieberman, Director  
Office of Enforcement

Dated at Rockville, Maryland  
this 15<sup>th</sup> day of September 1989



APPENDIX  
EVALUATIONS AND CONCLUSIONS

On June 28, 1989, a Notice of Violation and Proposed Imposition of Civil Penalties was issued to Isomedix, Incorporated for violations identified during NRC inspections and investigations. The licensee responded to the Notice on July 26, 1989. In its response, the licensee admits all of the violations but requests mitigation of the civil penalties. The NRC's evaluation and conclusion regarding the licensee's arguments are as follows:

1. RESTATEMENT OF VIOLATIONS

VIOLATIONS ASSESSED CIVIL PENALTIES:

I. 10 CFR 20.203(c)(6)(1) requires that each entrance or access point to an area (in which there may exist radiation levels in excess of 500 rems in one hour at one meter from a sealed radioactive source) must be equipped with entry control devices which function automatically to prevent any individual from inadvertently entering the area when such radiation levels exist.

A. Contrary to the above, for a period of time of at least one day prior to and after February 11, 1985, the access point to the irradiator room at the licensee's former irradiator facility in Parsippany, New Jersey (in which radiation levels existed in excess of 500 rems in one hour at one meter from a sealed radioactive source) was not equipped with an entry control device which functioned automatically to prevent an individual from entering the area. Specifically, during this time period, while the irradiator was operating, the required entry control device radiation monitor, which functions automatically to lock the entrance when excessive radiation levels are present, was not present and operating because it had been removed and sent for calibration without a replacement monitor being installed.

This is a Severity Level II violation. (Supplement IV)

Civil Penalty - \$8,000.

B. Contrary to the above, for a period of time of at least one day prior to and after April 14, 1986, the access point to the irradiator room at the licensee's former irradiator facility in Parsippany, New Jersey (in which radiation levels existed in excess of 500 rems in one hour at one meter from a sealed radioactive source) was not equipped with an entry control device which functioned automatically to prevent an individual from entering the area. Specifically, during this time period,

while the irradiator was operating, the required entry control device radiation monitor, which functions automatically to lock the entrance when excessive radiation levels are present, was not present and operating because it had been removed and sent for calibration without a replacement monitor being installed.

This is a Severity Level II violation. (Supplement IV)

Civil Penalty - \$8000.

- C. Contrary to the above, from May 29 to August 19, 1987, the access point to the irradiator room at the licensee's former irradiator facility in Parsippany, New Jersey (in which radiation levels existed in excess of 500 rems in one hour at one meter from a sealed radioactive source) was not equipped with an entry control device which functioned automatically to prevent an individual from entering the area. Specifically, during this time period, while the irradiator was operating, the required entry control device radiation monitor, which functions automatically to lock the entrance when excessive radiation levels are present, was not present and operating because it had been removed and sent for calibration without a replacement monitor being installed.

This is a Severity Level II Violation. (Supplement IV)

Civil Penalty - \$10,000.

- II. Condition 19 of License No. 29-19769-02 requires that the licensee possess and use licensed radioactive material at its facility in Northboro, Massachusetts in accordance with the statements, representations, and procedures contained in the license application dated May 24, 1982.

Section 4.6.1 of the license application dated May 24, 1982 requires that the proper operation of the irradiator ventilation fan be monitored by an air flow switch installed in the filter body such that if no air flow is indicated, the source is returned to the fully shielded position.

Contrary to the above, on August 20, 1987 and for an indeterminate number of times prior to that date (specifically, whenever water from heavy rainfall entered the ventilation system), no air flow was indicated in the ventilation system and, because jumper cables were installed to bypass the interlock associated with the air flow switch, the source was not returned to the fully shielded position.

This is a Severity Level III violation. (Supplement VI)

Civil Penalty - \$2,500.

## VIOLATIONS NOT ASSESSED A CIVIL PENALTY:

- III. Condition 20 of License No. 29-15364-01 required that the licensee possess and use licensed radioactive material at its former Pennsylvania facility in accordance with statements, representations, and procedures contained in the application dated December 20, 1985.

Item 7.2 of this application required that formalized weekly and monthly safety and maintenance related checks be performed on the mechanical systems of the irradiator.

Contrary to the above, the required monthly safety and maintenance related checks of the mechanical systems of the irradiator were not performed for January and February 1987, and the required weekly safety and maintenance related checks were not performed between December 17, 1986 and March 24, 1987.

This is a Severity Level IV violation. (Supplement VI)

- IV. 10 CFR 20.203(c)(6)(vii) requires that entry control devices required in accordance with 10 CFR 20.203(c)(6)(i) be tested with a source of radiation for proper functioning prior to initial operation on any day that operations are not uninterruptedly continued from the previous day, or before resuming operations after any interruptions, and records maintained of the date, time, and results of such tests.

Contrary to the above, records were not maintained of the safety interlock checks performed during the period from August 29, 1986 to February 1, 1987.

This is a Severity Level V violation. (Supplement IV)

2. SUMMARY OF LICENSEE RESPONSE REQUESTING MITIGATION OF THE CIVIL PENALTIES

Although the licensee admits the occurrence of all of the violations, the licensee requests mitigation of the respective civil penalties proposed for Violations I.A, I.B and I.C. In support of its request, the licensee argues that during those periods that the radiation cell monitor was out for calibration, the safety of personnel was not jeopardized because (1) alternate safety procedures were instituted requiring two individuals with two survey meters to monitor the door entry point, and the operators were instructed in these procedures which were posted at the entry point; and (2) seven other safety features were operable as part of the normal cell entry procedure. The licensee also argues that it was totally open and honest with the NRC during the inspections and investigations. The licensee also states that when the inspectors identified the violations, the licensee responded honestly regarding whether it had operated in this manner before, and that this form of self-incrimination should not be a basis for civil action.



### 3. NRC EVALUATION OF THE LICENSEE'S RESPONSE

In its letter dated June 28, 1989, transmitting the Notice of Violation and Proposed Imposition of Civil Penalties to Isomedix, Inc., the NRC recognized that alternate safety procedures had been instituted when the radiation monitor was removed for calibration. However, the NRC also noted that the licensee knew that the alternate procedures did not constitute an entry control device which functioned automatically to prevent inadvertent entry to the area, and thus did not constitute compliance with the requirements set forth in 10 CFR 20.203 (c)(6)(i). These factors were considered by the NRC in evaluating the significance and severity level of the violations. In accordance with the guidance provided in the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy), these factors are not considered by the NRC in the decision to escalate and mitigate a civil penalty (although a reduced Severity Level of a violation will generally result in a lower civil penalty amount). In this case, the NRC considered classifying each of these three violations at Severity Level I since the violations were willful. However, because alternate procedures and other safety features were in effect, the NRC determined that a Severity Level II classification was appropriate, and the amount of the civil penalties was determined after considering the normal escalation and mitigation factors in the manner described in the NRC's letter dated June 28, 1989.

Furthermore, while the NRC acknowledges the openness and honesty exhibited during the inspection and investigation, the NRC requires such honesty from its licensees and anything less would have been unacceptable and may have resulted in more significant civil and/or criminal enforcement action. It is a fundamental regulatory principle that all information provided to the NRC be complete and accurate in all material ways. Therefore, while this openness and honesty is commendable, it provides no basis for mitigation of the penalty.

### 4. NRC CONCLUSION

The NRC staff has carefully reviewed the licensee's response and has concluded that the licensee has not provided a sufficient basis for mitigation of the amount of the civil penalties. Therefore, civil penalties in the amount of \$28,500 should be imposed.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

APR 18 1989

Docket No. 030-60017  
License No. 45-23009-01  
EA 89-44

Lee County Community Hospital  
ATTN: Mr. Thomas F. Hall  
Administrator  
Post Office Box 70  
Pennington Gap, Virginia 24227

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC OFFICE OF INVESTIGATIONS REPORT NO. Q2-88-006)

During an NRC inspection of licensed activities at Lee County Community Hospital on August 11, 1988, minutes of Radiation Safety Committee meetings were reviewed. During that review, the inspector noted that the minutes dated May 28, 1987 and August 27, 1987 were identical, except for the date.

Subsequently, an investigation was conducted by the NRC Office of Investigations (OI). The Synopsis of the investigation report was provided to you with our letter of February 21, 1989. The investigation disclosed that the Chief Radiation Technologist, directed the falsification of minutes for a Radiation Safety Committee meeting. This was done in March 1988, when the Chief Radiation Technologist while reviewing documents for a pending (non-NRC) inspection of the hospital, found that the minutes for one Radiation Safety Committee meeting that had been held were missing. NRC concerns relative to the investigation findings were discussed in an Enforcement Conference held on February 24, 1989. A summary of this conference was sent to you by letter dated March 9, 1989.

The violation described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice), regarding the fabricated minutes of a Radiation Safety Committee meeting, is a very significant concern to the NRC. The ability to rely on the integrity of individuals holding responsible positions is inherent in the issuance and continuation of an NRC license to conduct activities involving radioactive materials.

To emphasize the importance of maintaining required information that is complete and accurate, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director of Nuclear Material Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500) for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the violation described in the enclosed Notice has been categorized as a Severity Level III. The base

APR 18 1989

value of a civil penalty for a Severity Level III violation is \$2,500. The escalation and mitigation factors in the Enforcement Policy were considered, and no adjustment has been deemed appropriate.

You are required to respond to this letter and the enclosed Notice and should follow the instructions specified therein when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. During the Enforcement Conference, the Hospital Administrator stated that he had arranged for a consultant to conduct Radiation Safety Committee meetings and prepare minutes of those meetings. While this is acceptable, the licensee retains the responsibility for fulfilling all NRC requirements associated with licensed activities. In your response, you should clarify how you intend to exercise your oversight responsibility for activities performed by the consultant. Your response should address your basis for having confidence in your Radiation Safety Officer and your Chief Radiation Technologist to assure that your NRC-licensed radiation safety program is properly carried out, including the completeness and accuracy of all records required by that program. In regard to your Chief Radiation Technologist, please include in your response a description of his involvement in NRC-licensed activities, including ordering, receiving, using, storing, and disposing of licensed material, and associated record-keeping activities, or supervising NRC-licensed activities.

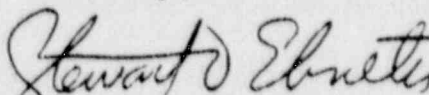
After reviewing your response, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and its enclosure are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Should you have any questions concerning this letter, please contact us.

Sincerely,



Stewart D. Ebnetter  
Regional Administrator

Enclosure:  
Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/encl:  
Commonwealth of Virginia



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Lee County Community Hospital  
Pennington Gap, Virginia

Docket No. 030-60017  
License No. 45-23009-01  
EA 89-44

During the Nuclear Regulatory Commission (NRC) inspection conducted on August 11, 1988, and investigation conducted in November 1988, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

10 CFR 30.9 requires that information provided to the Commission by a licensee or information required by statute or by Commission regulations, orders or license conditions to be maintained by the licensee be complete and accurate in all material respects.

10 CFR 35.22(a)(4) requires, among other things, that minutes of each Radiation Safety Committee (RSC) meeting include the date of the meeting.

10 CFR 35.22(a)(5) requires, in part, that the Radiation Safety Committee retain a copy of the meeting minutes for the duration of the license.

Contrary to the above, in March 1988, the date on a copy of the minutes of a quarterly Radiation Safety Committee meeting held in 1987 was changed and the altered document was placed in the file as representing the minutes of another quarterly Radiation Safety Committee meeting held in 1987.

This is a Severity Level III violation (Supplement VII).

Civil Penalty - \$2,500.

Pursuant to the provisions of 10 CFR 2.201, Lee County Community Hospital (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

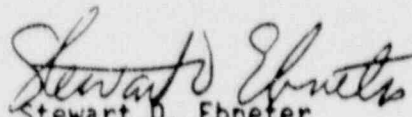
Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay the penalty due, which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, USNRC Region II, 101 Marietta Street N.W., Atlanta, Georgia 30323.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Stewart D. Ebnetter  
Regional Administrator

Dated at Atlanta, Georgia  
this ~~18th~~ day of April 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SEP 01 1989

Docket No. 030-60017  
License No. 45-23009-01  
EA 89-44

Lee County Community Hospital  
ATTN: Mr. Thomas F. Hall  
Administrator  
Post Office Box 70  
Pennington Gap, VA 24227

Gentlemen:

SUBJECT: ORDER IMPOSING A CIVIL MONETARY PENALTY - \$2,500

This refers to your letters dated May 18, and August 1, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by letter dated April 18, 1989. Our letter and Notice described a violation identified during an NRC inspection conducted on August 11, 1988 and a subsequent investigation conducted by the NRC Office of Investigations (OI). A civil penalty in the amount of \$2,500 was proposed to emphasize the importance of maintaining required information that is complete and accurate.

In your responses to the Notice, you did not deny the occurrence of the cited violation. However, you requested that the Severity Level be reduced and the civil penalty be mitigated for reasons described in your responses. After consideration of your responses, we have concluded for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty that the severity level of the violation is appropriate and that the civil penalty should be imposed. Accordingly, we hereby serve the enclosed Order on Lee County Community Hospital imposing a civil monetary penalty in the amount of \$2,500. Some of the information that NRC requested in the May 17, 1989 letter that forwarded the Notice is still outstanding and will be addressed following your response to this Order.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

Sincerely,

A handwritten signature in cursive script that reads "James Lieberman".  
James Lieberman, Director  
Office of Enforcement

Enclosure: (See page 2)



Lee County Community Hospital

- 2 -

Enclosure:  
Order Imposing Civil Monetary Penalty  
with Appendix

cc w/encl:  
Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
Commonwealth of Virginia

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
Lee County Community Hospital  
Pennington Gap, Virginia

)  
)  
)

Docket No. 030-60017  
License No. 45-23009-01  
EA 89-44

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Lee County Community Hospital, Pennington Gap, Virginia (licensee), is the holder of License No. 45-23009-01 issued by the Nuclear Regulatory Commission (Commission or NRC), which authorizes the medical use of byproduct material by the licensee. The license was issued August 22, 1983, was most recently renewed on August 19, 1988, and is due to expire on July 31, 1993.

II

An NRC safety inspection of the licensee's activities under this license was conducted on August 11, 1988. During the inspection, the NRC inspector noted that the minutes of Radiation Safety Committee meetings dated May 28, 1987 and August 27, 1987 were identical, except for the date. A subsequent investigation conducted by the NRC Office of Investigations disclosed that the minutes for one of the Radiation Safety Committee meetings was falsified at the direction of a licensee official. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated April 18, 1989. The Notice stated the nature of the violation,

the provisions of the Nuclear Regulatory Commission's requirements that the licensee had violated, and the civil penalty amount proposed for the violation. Responses dated May 18 and August 1, 1989, were received from the licensee in response to the Notice. In these responses, the licensee did not deny the violation but requested a reduction in the Severity Level of the violation and mitigation of the civil penalty.

### III

After consideration of the licensee's responses and the statements of fact, explanation and argument for mitigation contained therein, the NRC staff has determined as set forth in the Appendix to this Order, that the penalty proposed in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed.

### IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of \$2,500 within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of



Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington D.C. 20555.

V

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Assistant General Counsel for Hearings and Enforcement, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 and the Regional Administrator, U.S. NRC, Region II, 101 Marietta Street, N.W., Suite 2900, Atlanta, Georgia 30323.

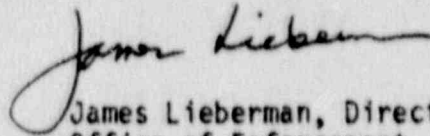
If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issues to be considered at such hearing shall be:

- (a) whether the licensee was in violation of the Commission's requirements as set forth in the Notice of Violation and Proposed Imposition of Civil Penalty referenced in Section II above, and

(b) whether, on the basis of such violation, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION



James Lieberman, Director  
Office of Enforcement

Dated at Rockville, Maryland  
this / 5<sup>th</sup> day of September 1989

## APPENDIX

### EVALUATION AND CONCLUSION

On April 18, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty was issued to Lee County Community Hospital. The licensee responded to the Notice on May 18 and August 1, 1989, did not deny the violation, but requested a reduction in the severity level of the violation and mitigation of the civil penalty. The NRC's evaluation and conclusion regarding the licensee's responses is as follows.

#### Summary of Licensee's Request for Mitigation

The licensee's reasons for requesting reduction in the Severity Level of the violation and mitigation of the civil penalty can be summarized as follows: (1) the hospital stated that they have had no major deficiencies in their program which were identified by the NRC since the inception of the nuclear medicine program, (2) there was no intent to defraud or mislead the NRC but merely an attempt to document a meeting that was held but for which the minutes were lost, (3) the licensee physicist's agenda and findings discussed at the May and August quarterly meetings were basically the same, (4) the Chief Technologist's performance has been well above average, and (5) corrective action has been taken, including involving the hospital administrator in the quarterly radiation safety committee meetings and detailed reviews of all aspects of operations with the staff.

#### NRC Evaluation of Licensee's Request for Mitigation

The licensee requested a reduction of the severity level assigned to the violation. The NRC Enforcement Policy (10 CFR Part 2, Appendix C, 1989) classifies at Severity Level II violations involving inaccurate or incomplete information which is provided to the NRC by a licensee official because of careless disregard for the completeness or accuracy of the information. In deciding to downgrade the classification of this violation from Severity Level II to Severity Level III, NRC has already taken into account the information that the Radiation Safety Committee meeting was actually held and that the discussion that took place may have been similar to the previous meeting. However, the NRC maintains that when the Chief Radiation Technologist noted that the minutes for one meeting were missing, he directed that the date be substituted for the date on a copy of some minutes that presented a specific, detailed account of a previous meeting; and, thereafter, this falsified document, which is an NRC-required document, was maintained in the files and was available for NRC inspection. It is unacceptable for a licensee official to direct that an NRC-required document be falsified. Therefore, mitigation or further reduction in the severity level is not appropriate.

The appropriate way to document the missing meeting minutes would have been to acknowledge that the record was misplaced and to recreate the minutes from other records or discussions with those in attendance and to annotate in the



minutes that the original record was lost and that the record had been reconstructed.

The licensee stated that no other major deficiencies have been identified by NRC inspections. NRC has, however, identified fourteen violations during the period covered by the last two inspections. Therefore, additional mitigation of the civil penalty based on past performance is not warranted.

NRC Conclusion

The NRC staff has carefully reviewed the licensee's responses and has concluded that the licensee has not provided adequate basis for reduction of the severity level or mitigation of the civil penalty. Therefore, the civil penalty in the amount of \$2,500 should be imposed.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

May 23, 1989

Docket No. 030-11906  
License No. 12-16941  
EA 88-313

Professional Service Industries, Inc.  
ATTN: Mr. James E. Ahlberg  
President  
510 East 22nd Street  
Lombard, IL 60148

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC INSPECTION REPORT NO. 030-11906/88002(DRSS))

This refers to the inspection conducted on November 30 and December 7-8, 1988, at your facilities in Lafayette, Indiana and Lombard, Illinois. The inspection included a review of the circumstances associated with the theft of a moisture-density gauge containing licensed material. The loss was identified by your staff on November 18, 1988 and reported to the NRC Region III office approximately three hours later. The report of the inspection was forwarded to you by letter dated January 6, 1989. During the inspection, one violation of NRC requirements was identified. The violation, its causes, and your corrective actions were discussed during an enforcement conference in the Region III office on December 20, 1988, between Mr. Leland Lewis and other members of your staff and Dr. C. J. Paperiello and other members of the Region III staff. The violation that is described in the enclosed Notice occurred when a Professional Service Industries (PSI) employee failed to secure or maintain continuous surveillance over an unsecured moisture-density gauge in the back of an open bed pickup truck parked in an unrestricted area.

The NRC is concerned by what appears to be a breakdown in the implementation of an effective management control program at the individual PSI branch offices. In a December 5, 1988, letter to the NRC Region III office, in response to a request for additional information as a result of the November 30, 1988 inspection, PSI's Radiation Safety Director (RSD) noted that the corporate office repairs damaged gauges, replaces lost or stolen gauges, responds to NRC regarding any incidents, and generally takes care of the branch office. The RSD concluded that "with such relief from certain regulatory matters at the individual office level, there exists a potential for a subconscious attitude of, at worst, carelessness or, at best, a partial reduction in due caution" for the control of gauges.

NRC concurs with the RSD's observation and believes that the theft of a moisture-density gauge on November 18, 1988, from a field site near your Lafayette, Indiana branch office was the direct result of an individual's careless disregard of PSI's procedures as well as NRC's requirement that licensed material in an unrestricted area be maintained under constant surveillance or secured against unauthorized removal.

During the December 20, 1988 enforcement conference, your staff argued that considering the size of PSI, the number of gauges in use, and the number of individuals who use these gauges, your record is statistically very good. Consideration was given to the size of PSI operations in arriving at an appropriate enforcement action. While the extent of the losses of control of material was a consideration in our determination not to revoke your license, as discussed below, it was also a consideration in determining that a higher penalty is appropriate in this case.

NRC expects all licensees, regardless of their size, to comply with all NRC requirements. Even an isolated failure to properly control licensed materials is of concern to NRC. Multiple failures, especially those resulting in thefts or losses, such as the three thefts or losses of PSI's moisture-density gauges on August 6, 1987, on March 17, 1988, and on November 18, 1988, an interval of approximately 15 months, are unacceptable. In two of these events, the loss of control of licensed materials did not result from error or oversight, but your employees acted carelessly without due regard for the safety implications of their actions. It appears that the quality of supervision and the level of personal accountability for compliance with PSI procedures and NRC requirements at your branch offices have not, in all cases, been adequate. The audits you proposed in response to the previous event were not effective in identifying this weakness. Because of the large number of moisture-density gauges being used by PSI at numerous NRC-authorized locations, it is essential that corporate and especially branch management implement an aggressive program for ensuring that all gauge users follow PSI's radiation safety procedures and maintain effective surveillance and control over all gauges to prevent physical damage, loss, or theft. We understand that you are in the process of upgrading the accountability of your field supervisors and managers and we are actively reviewing your recent request to amend your license which addresses this issue.

To emphasize the importance of these matters and the need to ensure personal accountability for safety compliance, more effective field audits, and management control over your radiation safety program, I have been authorized, after consultation with the Commission, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Twenty Thousand Dollars (\$20,000) for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988) (Enforcement Policy), this violation would normally have been classified at Severity Level III.



May 23, 1989

However, the violation has been classified at Severity Level II in accordance with Section III of the Enforcement Policy since the circumstances surrounding the loss of control of the moisture-density gauge involve careless disregard of NRC requirements on the part of one of your employees. Careless disregard exists because the user had been trained in the required procedures, was knowledgeable about them, was aware of the potential hazards, and consciously failed to follow established company procedures which required placing the gauge into secured storage in the carrying case which is chained to the bed of the truck and keep the keys to the gauge and the carrying case with him at all times.

The base civil penalty for a Severity Level II violation is \$800.00. However, based on the size of PSI, its activities, and your ability to pay, we have concluded that an \$8,000 base civil penalty is more appropriate in providing a future deterrence in this case. The mitigation and escalation factors in the enforcement policy were considered and the base civil penalty amount has been increased by 150 percent. In assessing this penalty, a 50 percent reduction was applied for prompt identification and reporting. The penalty was increased 100 percent for prior poor performance and an additional 100 percent for prior notice given by NRC Information Notice No. 87-55: Portable Moisture/Density Gauges: Recent Incidents of Portable Gauges Being Stolen or Lost. Corrective actions provided neither escalation nor mitigation. Although comprehensive and innovative, the actions were not timely. The application of other mitigation/escalation factors was not deemed appropriate. Should significant violation of the Commission's requirements occur in the future, the base civil penalty will be similarly escalated.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken, including actions to address the concerns regarding personal accountability of field employees, and any additional actions you plan to ensure your corrective actions are effective. In addition, your response should include a statement under oath or affirmation explaining why, in view of the disregard of NRC regulations and PSI's procedures exhibited by the user of the moisture-density gauge in this case, PSI, and therefore the NRC, should have confidence that in the future, this user will comply with NRC and PSI requirements. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action, including possible modification, suspension or revocation of your license, is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

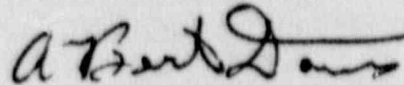
Professional Service  
Industries, Inc.

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May 23, 1989

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed  
Imposition of Civil Penalty
2. Inspection Report  
No. 030-11906/88002(DRSS)

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Professional Service Industries, Inc.  
Lombard, Illinois

Docket No. 030-11906  
License No. 12-16941-01  
EA 88-313

During an NRC inspection conducted on November 30 and December 7-8, 1988 a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C 2282, and 10 CFR 2.205. The particular violation and associated civil penalty is set forth below:

10 CFR 20.207(b) requires that licensed materials in an unrestricted area and not in storage be tended under the constant surveillance and immediate control of the licensee.

Contrary to the above, on November 18, 1988, an unsecured Campbell-Pacific moisture-density gauge containing a nominal 10 millicurie cesium-137 sealed source and a 50 millicurie americium-241 sealed source was left by the licensee in the back of an open bed pickup truck in an unrestricted area and the licensed material was not in storage and was not under the constant surveillance and immediate control of the licensee.

This is a repeat violation.

This is a Severity Level II violation (Supplement IV).  
Civil Penalty - \$20,000

Pursuant to the provisions of 10 CFR 2.201, Professional Service Industries, Inc. (Licensee), is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective actions that have been taken and the results achieved; (4) the corrective actions that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an Order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.



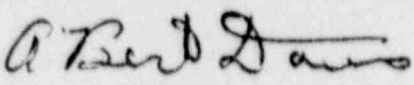
Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an Order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1988), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 23<sup>rd</sup> day of May 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

JUL 24 1989

Docket No. 030-11506  
License No. 12-16941-01  
EA 88-313

Professional Service Industries, Inc.  
ATTN: Mr. James E. Ahlberg  
President  
510 East 22nd Street  
Lombard, Illinois 60148

Gentlemen:

SUBJECT: ORDER IMPOSING CIVIL MONETARY PENALTY

This refers to your letters dated June 20, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty sent to you by our letter dated May 23, 1989. Our letter and Notice described a violation identified during an NRC inspection conducted on November 30 and December 7-8, 1988, at your facilities in Lafayette, Indiana and Lombard, Illinois. The violation was classified as a Severity Level II problem due to the careless disregard for NRC requirements exhibited by one of your employees. In addition, the NRC emphasized the need to ensure personal accountability for safety compliance, more effective field audits and management control of your radiation safety program since there appeared to be a breakdown in the implementation of an effective management control program at the individual PSI branch offices. A Twenty Thousand Dollar (\$20,000) civil penalty was proposed for the violation.

In your response, you acknowledged that the violation occurred as stated in the Notice and you requested that the civil penalty be mitigated by 90 percent because of your view that the penalty appears to be based upon PSI being categorized with industrial radiographers, nuclear pharmacies, and other industrial users, a category to which a \$10,000 base civil penalty applies, rather than being classified as a user of moisture density gauges, a category to which a base civil penalty of \$1,000 applies.

After consideration of your response, we have concluded, for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Penalty, that the violation occurred as originally stated and that mitigation of the civil penalty is not warranted. Accordingly, we hereby serve the enclosed Order on Professional Service Industries, Inc., Lombard, Illinois, imposing a civil monetary penalty in the amount of Twenty Thousand Dollars (\$20,000). We will review the effectiveness of your corrective actions during a subsequent inspection.

Professional Service  
Industries, Inc.

- 2 -

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

Sincerely,



Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Enclosures: As stated

cc w/enclosures:  
Public Document Room  
Nuclear Safety Information Center (NSIS)  
State of Illinois



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of

PROFESSIONAL SERVICE INDUSTRIES, Inc.  
Lombard, Illinois

)  
)  
)

Docket No. 030-11906  
License No. 12-16941-01  
EA 88-313

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Professional Service Industries, Lombard, Illinois (licensee) is the holder of Materials License No. 12-16941-01 issued by the Nuclear Regulatory Commission on September 30, 1976 and renewed in its entirety on April 25, 1988. The licensee authorizes the licensee to possess and use licensed material for measuring the moisture and/or density of construction materials and for sample analysis.

II

A routine inspection of the licensee's activities on November 30 and December 7-8, 1988 disclosed that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty was served upon the licensee by letter dated May 23, 1989. The Notice stated the nature of the violation, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violation. The licensee responded to the Notice of Violation and Proposed Imposition of Civil Penalty in two letters dated June 20, 1989. In its response, the licensee admitted the violation and requested 90 percent mitigation of the civil monetary penalty.

III

After consideration of the licensee's response and the statements of fact, explanation, and request for mitigation contained therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support has determined, as set forth in the Appendix to this Order, that the violation occurred as stated and that the penalty proposed for the violation designated in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Twenty Thousand Dollars (\$20,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

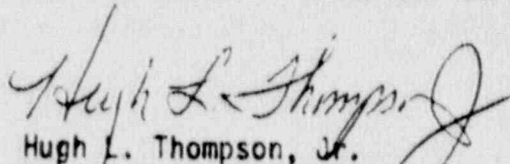
The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control

Desk, Washington, D.C. 20555. A copy of the hearing request shall also be sent to the Assistant General Counsel for Hearings and Enforcement, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issues to be considered at such hearing shall be whether, on the basis of the violation, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION



Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Dated at Rockville, Maryland,  
this 24<sup>th</sup> day of July 1989



## APPENDIX

### EVALUATIONS AND CONCLUSIONS

On May 23, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for the violation identified during an NRC inspection. Professional Service Industries, Inc. (PSI) responded to the Notice on June 20, 1989. The licensee admitted the violation, described corrective steps taken to ensure compliance now and in the future, and requested that the civil penalty be mitigated from \$20,000 to \$2,000. The following includes a restatement of the violation, a summary of the licensee's response and the NRC staff's evaluation and conclusion regarding the licensee's request.

#### I. Restatement of Violation

10 CFR 20.207(b) requires that licensed materials in an unrestricted area and not in storage be tended under the constant surveillance and immediate control of the licensee.

Contrary to the above, on November 18, 1988, an unsecured Campbell-Pacific moisture-density gauge containing a nominal 10 millicurie cesium-137 sealed source and a 50 millicurie americium-241 sealed source was left by the licensee in the back of an open bed pickup truck in an unrestricted area and the licensed material was not in storage and was not under the constant surveillance and immediate control of the licensee.

This is a repeat violation.

This is a Severity Level II violation (Supplement IV).  
Civil Penalty - \$20,000

#### II. Summary of Licensee's Request for Mitigation

The licensee argues that the penalty appears to be based upon PSI being categorized with industrial radiographers, nuclear pharmacies and other industrial users licensed to use material with a large potential for exposure and/or contamination hazard to personnel and the public, a category for which the base civil penalty is ten thousand dollars (\$10,000). PSI is a licensed user of moisture density gauges, and the licensee further argues that it should be categorized along with users of these and similar devices, which are included in a civil penalty category for which the base civil penalty is one thousand dollars (\$1,000).

#### III. NRC Evaluation of Licensee's Request for Mitigation

In developing this enforcement action, the NRC staff considered the general guidance in Paragraph 5, Section V.B of the of the Enforcement Policy which states, in part, that ". . . operations involving greater nuclear material inventories and greater potential consequences to the public and licensee employees receive higher civil penalties.... The deterrent effect of civil penalties is best served when the amount of such penalties takes into account a licensee's 'ability to pay'.... NRC will consider as necessary an increase or decrease on a case-by-case basis."

In a number of cases, civil penalties have been decreased based on the size of the program and "ability to pay." Conversely, there have been several cases involving materials licensees where the civil penalty has been increased, based, in part, on increased size of a program and "ability to pay" where the Enforcement Policy would not have provided a sufficient penalty absent such consideration.

Contrary to PSI's impression, the staff has not categorized PSI among "Industrial users of materials" licensees (category f). Rather, as stated in the staff's May 23, 1989 letter, the base civil penalty for PSI's Severity Level II violation was \$800. This amount is the amount that would be assessed against "Other material licensees" (category j). However, the staff in consultation with the Commission concluded that, based on the size of PSI, its activities, and ability to pay, a base penalty significantly larger than the \$800 provided for in Category j of Table 1a of the Policy was warranted. Based on the factors stated above and Section V.B of the Enforcement Policy, a base civil penalty of \$8,000 was determined to be appropriate in this case. After consideration of the adjustment factors in the Enforcement Policy, the staff determined that a civil penalty of \$20,000 should be proposed. The staff believes that this penalty will provide the appropriate motivation by sending a clear message of its regulatory concern to not only PSI's corporate office but also PSI's individual branches.

#### IV. NRC Conclusion

The NRC staff has concluded that the licensee's request for 90 percent mitigation of the proposed civil penalty is not supported by the licensee's arguments in its June 20, 1989 responses. Consequently, the proposed civil penalty in the amount of \$20,000 should be imposed.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

MAY 17 1989

Docket No: 030-13036  
License No: 45-17606-01  
EA 88-287

Rappahannock General Hospital  
ATTN: Mr. R. Fredrick Baensch  
Administrator  
Post Office Box 1449  
Kilmarnock, Virginia 22482

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$2,500  
(NRC OFFICE OF INVESTIGATIONS REPORT NO. 2-87-007)

During an NRC inspection of licensed activities at Rappahannock General Hospital on January 13, 1987, minutes of Radiation Safety Committee meetings were reviewed. During that review, the inspector noted that the minutes indicated meetings were held on September 13, 1985 and September 13, 1986. However, it appeared the date on the latter meeting minutes had been altered.

Subsequently, an investigation was conducted by the NRC Office of Investigations (OI). The synopsis of the investigation report was provided to you with our letter of February 10, 1989. The investigation disclosed that the minutes of the September 13, 1986 meeting had been fabricated and were presented to the inspector as representing an actual meeting when in fact no such meeting was held. The minutes were fabricated by changing the date on a copy of the minutes of a Radiation Safety Committee meeting held on September 13, 1985 to read September 13, 1986, and by deleting the name of one of the attendees who was present at the September 13, 1985 meeting. NRC concerns relative to the investigation findings were discussed in an Enforcement Conference held on March 10, 1989. A summary of this conference was sent to you by letter dated March 28, 1989.

The repetitive failure to hold quarterly Radiation Safety Committee meetings was the subject of a civil penalty issued to you on April 6, 1987. As a separate and distinct issue, the violation described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) focuses on the fabrication of minutes of a Radiation Safety Committee meeting that was never held.

Deceptive alteration or fabrication of required records is of very significant concern to the NRC and raises significant questions about the integrity of the individuals involved. In this case, our investigation was not able to



MAY 17 1989

To emphasize the significance that NRC places on deceptive alteration of required documents, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director of Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500) for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1986) (Enforcement Policy), the violation described in the enclosed Notice has been categorized as a Severity Level III because it involved deliberate falsification of a record that you are required to keep under the terms of your NRC license. The base value of a civil penalty for a Severity Level III violation is \$2,500. The escalation and mitigation factors in the Enforcement Policy were considered, and no adjustment of the base civil penalty amount has been deemed appropriate.

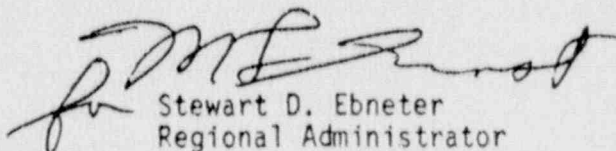
You are required to respond to this letter and the enclosed Notice and should follow the instructions specified therein when preparing your response. In your response, you should document (1) the actions taken and any additional actions you plan to prevent recurrence, specifically, actions to assure that all individuals associated with NRC-licensed activities are forthright and candid in the conduct of those activities, in their dealings with NRC, and in the maintenance of NRC records, and (2) how you intend to perform the management oversight responsibilities to assure that all individuals involved in NRC-licensed activities will conduct those activities in accordance with NRC regulations and the requirements of your NRC license.

After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and its enclosure are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



Stewart D. Ebnetter  
Regional Administrator

Enclosure:  
Notice of Violation and Proposed  
Imposition of Civil Penalty

cc w/encl:  
Commonwealth of VA

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Rappahannock General Hospital  
Kilmarnock, VA

Docket No. 030-13036  
License No. 45-17606-01  
EA 88-287

During the Nuclear Regulatory Commission (NRC) inspection conducted on January 13, 1987 and the investigation documented in NRC Office of Investigations Report No. 2-87-007 issued on October 27, 1988, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1986), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

License Condition 16 of NRC License No. 45-17606-01 requires the licensee to possess and use licensed material in accordance with statements, representations, and procedures contained in the letter dated October 23, 1981, and the license application dated July 20, 1982.

Item 7 of the license application requires the licensee to follow Appendix B of Regulatory Guide 10.8 (Rev. 1). Appendix B of Regulatory Guide 10.8 requires the Radiation Safety Committee (Medical Isotopes Committee) to meet not less than once in each calendar quarter and to maintain written records of all committee meetings, actions, recommendations, and decisions.

Contrary to the above, on or before January 13, 1987, a written record was fabricated to document a Radiation Safety Committee meeting that, in fact, did not take place; and on January 13, 1987, this fabricated record was presented to an NRC inspector for review.

This is a Severity Level III violation (Supplement VII).  
Civil Penalty - \$2,500.

Pursuant to the provisions of 10 CFR 2.201, Rappahannock General Hospital is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) admission or denial of the violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.



Notice of Violation

- 2 -

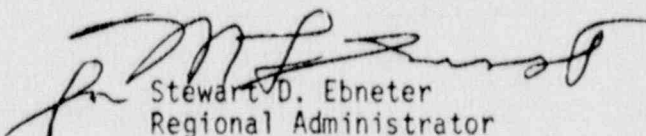
Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing a civil penalty.

Upon failure to pay the penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, NRC Region II, 101 Marietta Street, N.W., Suite 2900, Atlanta, Georgia 30323.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Stewart D. Ebnetter  
Regional Administrator

Dated at Atlanta, Georgia  
this 17th day of May 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 20 1989

Docket No. 030-13036  
License No. 45-17606-01  
EA 88-287

Rappahannock General Hospital  
ATTN: Mr. R. Frederick Baensch  
Administrator  
Post Office Box 1449  
Kilmarnock, Virginia 22482

Gentlemen:

SUBJECT: ORDER IMPOSING A CIVIL MONETARY PENALTY - \$2,500

This refers to your letter dated May 24, 1989, in response to the Notice of Violation and Proposed Imposition of Civil Penalty (Notice) sent to you by letter dated May 17, 1989. Our letter and Notice described a violation identified during an NRC inspection conducted on January 13, 1987, and a subsequent investigation conducted by the NRC Office of Investigations (OI). A civil penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500) was proposed to emphasize the significance that NRC places on deceptive alteration of required documents.

In your response to the Notice, you denied the occurrence of the cited violation and requested that the violation be withdrawn and the civil penalty retracted. After consideration of your response, we have concluded for the reasons given in the Appendix attached to the enclosed Order Imposing Civil Monetary Penalty that the violation occurred as stated in the Notice. Accordingly, we hereby serve the enclosed Order on Rappahannock General Hospital imposing a civil monetary penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500). The issue of your corrective actions to avoid further violations will be addressed following your response to this Order.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

Sincerely,

A handwritten signature in cursive script, appearing to read "Hugh L. Thompson, Jr.".

Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards,  
and Operations Support

Enclosure:  
Order Imposing Civil Monetary Penalty  
with Appendix

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of  
Rappahannock General Hospital  
Kilmarnock, Virginia

)  
)  
)

Docket No. 030-13036  
License No. 45-17606-01  
EA 88-287

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Rappahannock General Hospital (licensee) is the holder of License No. 45-17606-01 issued by the Nuclear Regulatory Commission (Commission or NRC), which authorizes the medical use of byproduct material in accordance with the conditions specified in the license. The license was issued September 20, 1977, most recently renewed on July 11, 1988, and is due to expire on July 31, 1993.

II

An NRC safety inspection of the licensee's activities under this license was conducted on January 13, 1987. During the inspection, the NRC inspector noted a number of discrepancies in the minutes of the Radiation Safety Committee meeting for September 13, 1986. Among other things, it appeared that the date on the meeting minutes had been altered. A subsequent investigation conducted by the NRC Office of Investigations (OI) disclosed that the minutes of the September 13, 1986 meeting had been fabricated and were presented to the inspector as representing an actual meeting when in fact no such meeting was held. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated May 17, 1989. The Notice stated the nature of the violation, the provisions of the Nuclear Regulatory Commission's requirements that the licensee had violated, and the amount of the

civil penalty proposed for the violation. The licensee responded to the Notice by letter dated May 24, 1989. In this response, the licensee denied the violation and requested the withdrawal of the violation and retraction of the civil penalty.

III

After consideration of the licensee's response and the statements of fact, explanation and argument for withdrawal of the violation and civil penalty contained therein, the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support has determined as set forth in the Appendix to this Order, that the violation occurred as stated, and that the penalty proposed for the violation designated in the Notice should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.



The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing shall be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Assistant General Counsel for Hearings and Enforcement, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and the Regional Administrator, U.S. NRC, Region II, 101 Marietta Street, N.W., Suite 2900, Atlanta, Georgia 30323.

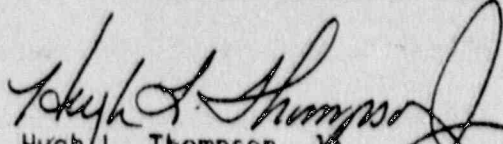
If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing, as provided above, the issues to be considered at such hearing shall be:

- (a) whether the licensee was in violation of the Commission's requirements as set forth in the Notice of Violation and Proposed Imposition of Civil Penalty referenced in Section II above, and

- (b) whether, on the basis of such violation, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION



Hugh L. Thompson, Jr.  
Deputy Executive Director for  
Nuclear Materials Safety, Safeguards  
and Operations Support

Dated at Rockville, Maryland  
this 30th day of August 1989

## APPENDIX

### EVALUATION AND CONCLUSION

On May 17, 1989, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for a violation identified during an NRC inspection and investigation. Rappahannock General Hospital (licensee) responded to the Notice on May 24, 1989. In its response, the licensee denied the violation and requested retraction of the civil penalty. The NRC's evaluation and conclusion regarding the licensee's arguments are as follows:

#### Restatement of Violation

- I. License Condition 16 of NRC License No. 45-17606-01 requires the licensee to possess and use licensed material in accordance with statements, representations, and procedures contained in the letter dated October 23, 1981, and the license application dated July 20, 1982.

Item 7 of the license application requires the licensee to follow Appendix B of Regulatory Guide 10.8 (Rev. 1). Appendix B of Regulatory Guide 10.8 requires the Radiation Safety Committee (Medical Isotopes Committee) to meet not less than once in each calendar quarter and to maintain written records of all committee meetings, actions, recommendations, and decisions.

Contrary to the above, on or before January 13, 1987, a written record was fabricated to document a Radiation Safety Committee meeting that, in fact, did not take place; and on January 13, 1987, this fabricated record was presented to an NRC inspector for review.

#### II. Summary of Licensee Response

The licensee denied that a written record was fabricated to document that a Radiation Safety Committee (RSC) meeting took place in 1986 and that the record was presented to the NRC inspector with the intent to defraud. The licensee stated that it could find no other copy of the 1985 RSC minutes, and, because the body of the minutes states 1985, the 1985 minutes were filed in that manner. The licensee stated that its Administrator had the "impression" that the inspector had been authorized to look through the licensee's file cabinets and may have found the document there, and that the claim that the document was presented to the inspector to defraud does not agree with the facts. The licensee acknowledged that required quarterly RSC meetings were not held during the two-year period ending in January 1987, and indicated that it was not reasonable to believe that a licensee representative would have offered documentation to indicate that one meeting out of this period was held in the hope of making the situation appear any better when its officers and employees admitted all along that there were no such meetings. The licensee acknowledged that it was odd that the document reviewed by the inspector had two items deleted with white correction fluid ("whited out"), and that contradictory dates appeared on the document.



### III. NRC Evaluation of Licensee Response

During the NRC inspection conducted on January 13, 1987, the inspectors requested that the nuclear medicine physician and/or the chief nuclear medicine technologist produce the minutes of the most recent RSC meeting. During the investigation conducted by the NRC Office of Investigations (OI), one inspector testified that, after a brief absence, the nuclear medicine physician provided him with a document purported to be a copy of the requested minutes. The document contained alterations and discrepancies, including a discrepancy in the date of the meeting and a deletion of the name of one of the attendees. Contrary to the statement in the licensee's response, the inspectors did not find the document in the licensee's files.

The licensee indicated both during the Enforcement Conference held in the NRC Region II office on March 10, 1989, and in its May 24, 1989, response that the document which was purported to be a copy of the requested minutes appears to have been altered. The OI investigation did not conclusively establish who actually altered the September 13, 1985, minutes to represent that a meeting had been held on September 13, 1986. However, a review of the pertinent records clearly established that an RSC meeting was convened on September 13, 1985, rather than September 13, 1986, as indicated in the minutes, and that the altered document was proffered to the NRC inspector. Based upon this evidence, NRC has concluded that an individual affiliated with the hospital altered or directed the alteration of a copy of the minutes for the September 13, 1985 RSC meeting, and, when the inspector requested to see the minutes of the most recent RSC meeting held, the altered document was presented to the inspector as the official minutes of a September 13, 1986 meeting that was, in fact, not held.

### NRC Conclusion

The NRC staff has carefully reviewed the licensee's response and has concluded that the violation occurred as stated in the Notice and that the licensee has not provided an adequate basis for withdrawal of the violation or retraction of the civil penalty. Therefore, the civil penalty in the amount of \$2,500 should be imposed.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

August 22, 1989

Docket No. 030-02200  
License No. 22-01448-01  
EA 89-140

St. Joseph's Hospital  
ATTN: Mr. Gary French  
Administrator  
69 W. Exchange  
St. Paul, Minnesota 55102

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$4,375  
(NRC INSPECTION REPORTS NO. 030-02200/89001(DRSS)  
AND NO. 030-00290/89001(DRSS))

This refers to the NRC inspection conducted on June 27-28, 1989, at St. Joseph's Hospital of activities authorized by NRC Licenses No. 22-01448-01 and No. 22-01448-03. The report of the inspection was sent to you on July 14, 1989. During the inspection, violations of NRC requirements were identified against License No. 22-01448-01. On July 18, 1989, an enforcement conference was conducted in the NRC Region III office with you and other members of your staff and A. B. Davis and other members of the NRC staff to discuss the violations, their causes, and your corrective actions.

The violations, identified during the June 27-28, 1989, inspection and described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice), include: (1) failure to make surveys for radiation levels in an unrestricted area, (2) radiation levels in an unrestricted area in excess of regulatory limits, (3) failure to perform wipe tests of packages of radioactive material for removable contamination, (4) failure to provide required training to two nuclear medicine technologists, (5) failure of a nuclear medicine technologist to attend required annual radiation safety training sessions, (6) failure to conduct dose calibrator linearity and accuracy tests at required intervals, (7) inadequate ventilation checks in the xenon-133 use and storage areas, (8) failure to conduct weekly surveys or wipe tests in areas where radioactivity was potentially present, (9) improper disposal of radioactive waste, (10) failure to leak test sealed sources at required intervals, (11) failure to inventory sealed sources at quarterly intervals, and (12) failure to maintain a record of a diagnostic misadministration. These violations, when considered collectively, are indicative of a lack of management control and supervisory oversight of your nuclear medicine program.



Although no violations were identified during the previous inspection on September 25, 1985, it appears there has been a significant breakdown in the nuclear medicine radiation safety program starting in July 1988 and continuing until the NRC inspection on June 27-28, 1989. Dr. Allen Bergh, Radiation Safety Officer (RSO), noted during the enforcement conference that before July 1988, St. Joseph's Hospital had two highly qualified technologists who effectively implemented the nuclear medicine radiation safety program. As a result, Dr. Bergh had little involvement with the day-to-day functioning of the program. When both technologists terminated employment, an immediate deterioration of the nuclear medicine radiation safety program occurred. Since neither the Administrator nor Dr. Bergh were exercising effective oversight over the program, there was no management awareness of the nature of the problems until they were identified during June 27-28, 1989 inspection.

The NRC is particularly concerned that you relied on nuclear medicine technologists to make your radiation safety and control program function, rather than relying on a viable management control system to accomplish this task. It is important that your corrective actions address this concern and you should take whatever steps are necessary to ensure that, in the future, termination of employment of key personnel will not compromise your radiation safety program. The Administrator, the RSO, and the Radiation Safety Committee need to be more aggressive in their audit and review function and must ensure that deficiencies, when they exist, are promptly identified and effectively corrected. We are concerned that your management organization had not initiated long term actions to address this problem at the time of our enforcement conference with you.

To emphasize the importance of ensuring in the future that you will exercise greater management control over all NRC licensed activities, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Material Safety, Safeguards, and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Four Thousand Three Hundred and Seventy-Five Dollars (\$4,375) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989) (Enforcement Policy), the violations described in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem. The base value of a civil penalty for a Severity Level III problem is \$2,500.

The NRC enforcement policy allows for adjustment of a civil penalty under certain circumstances. In this case, the escalation and mitigation factors were considered and it was concluded that a 75 percent escalation of the base civil penalty is appropriate. This conclusion is based on the fact that the violations were identified by the NRC, but should have been identified by you, and that you had received prior notice of this type of management programmatic problem through the issuance of NRC Information Notice No. 88-10, "Materials



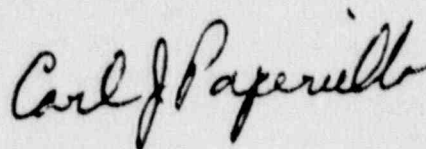
Licenses: Lack of Management Controls Over Licensed Programs," dated March 10, 1988. Partial mitigation was allowed for your short term corrective action to address the items that were identified during the inspection. However, full mitigation for your corrective action is not considered warranted, as the nuclear medicine program has not yet taken long-term corrective action. In addition, although the previous NRC inspection on September 25, 1985 identified no violations, your radiation safety program has deteriorated since that time. Therefore, mitigation for past performance is not warranted.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. Further, you should describe in detail your plans for performing a detailed assessment of your radiation protection program, particularly with regard to procedures, training, and improvements in supervisory oversight of radiological control activities. After reviewing your response to this Notice, including your proposed corrective actions and the results of the inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,



A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Inspection Reports  
No. 030-02200/89001(DRSS);  
No. 030-00290/89001(DRSS)

See Attached Distribution

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

St. Joseph's Hospital  
St. Paul, Minnesota

Docket No. 030-02200  
License No. 22-01448-01  
EA 89-140

During an NRC inspection conducted on June 27-28, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. 10 CFR 20.201(b) requires that each licensee make such surveys as may be necessary to comply with the regulations of Part 20 and which are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a) "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above, from approximately 1984 until June 27, 1989, no surveys were made of radiation levels in an unrestricted area adjacent to the brachytherapy storage area which contains cesium-137 and radium-226 to assure compliance with 10 CFR 20.105(b) which limits radiation levels in unrestricted areas.

- B. 10 CFR 20.105(b) requires, that except as authorized by the Commission, radiation levels in unrestricted areas be limited such that if an individual were continuously present in the area he could not receive a dose in excess of 2 millirems in any one hour or 100 millirems in any seven consecutive days.

Contrary to the above, on June 27, 1989, radiation levels of up to 100 milliroentgen per hour existed in an unrestricted area adjacent to the brachytherapy storage area and if an individual were continuously present in the area he could have received a dose in excess of 2 millirem in any one hour or 100 millirem in any seven consecutive days.

- C. License Condition No. 16 requires the licensee to possess and use licensed materials in accordance with statements, representations, and procedures contained in application dated September 28, 1983, and letters dated August 3, 1978 (Item 12 only), April 6, 1984, and August 23, 1985.

1. Item 14 of the application dated September 28, 1983, requires, in part, that for shipments above exempted quantities up to Type A quantity limits as stated in Paragraph 20.205(b)(1) of 10 CFR Part 20, wipes of the external surfaces of packages will be performed.



Contrary to the above, from June 6 through June 27, 1989, wipe tests were not performed on the external surfaces of any of the packages containing above exempted quantities of technetium-99m received by the licensee on a daily basis.

2. Item 12 of the application dated September 28, 1983, requires that new nuclear imaging personnel will receive training in specific areas described in the attached outline. Item VII of the attached outline includes a review of the NRC license and regulations.

Contrary to the above, as of June 28, 1989, no training in the area of the NRC license or regulations had been received by two nuclear medicine technologists hired at the facility in August and November 1988.

3. The licensee's letter dated April 6, 1984, requires that nuclear medicine technologists attend an annual radiation safety teaching session during one of the four annual Radiation Safety Committee meetings.

Contrary to the above, as of June 28, 1989, a nuclear medicine technologist employed by the licensee for 17 years has never attended an annual radiation safety training session.

4. Item 10 of the application dated September 28, 1983, requires that the procedures described in Appendix D, Section 2 of Regulatory Guide 10.8 will be followed when calibrating the dose calibrator.

Section A of Appendix D, Section 2 of Regulatory Guide 10.8 requires, in part, that linearity tests be conducted quarterly and instrument accuracy test be conducted annually.

Contrary to the above, linearity tests were not conducted on the licensee's dose calibrator from August 10, 1988 through April 2, 1989 and an instrument accuracy test was not conducted from November 12, 1987 through June 27, 1989.

5. Item 21 of the application dated September 28, 1983, states that arrangements had been made to have ventilation checks conducted every six months in areas where xenon-133 is used to ensure compliance with NRC regulations.

Contrary to the above, from September 24, 1987 through June 27, 1989, ventilation checks conducted in the licensee's camera room and hot lab areas where xenon-133 was used and stored were not adequate to demonstrate compliance with 10 CFR Part 20. Specifically, the ventilation checks were inadequate, in that, they were performed by using smoke rather than velometer measurements.



6. Item 17 of the application dated September 28, 1983, requires that radiation surveys be conducted once a week in designated areas where radioactivity may potentially be present and that wipe testing be conducted once a week on designated surfaces which radioactive materials may potentially contact.

Contrary to the above, radiation surveys and wipe tests were not conducted as required during the weeks of August 22 and 29, 1988; September 12, 1988; October 3, 10, 17, 24, and 31, 1988; November 14 and 21, 1988; December 5, 1988; January 2, 16, 23, and 30, 1989; March 6 and 27, 1989; April 10, 17, and 24, 1989; May 1, 8, 15, and 29, 1989; and June 12 and 19, 1989.

7. Item 18 of the application dated September 28, 1983, requires that outdated nuclides be held for at least 15 physical half lives before discarding as non-radioactive waste, that all disposals be recorded, and that the records include date of disposal, the identity of the radionuclide, the date on the bag or assay date, and the activity of the waste.

Contrary to the above, on February 16, 1988, the licensee disposed of phosphorus-32 as non-radioactive waste without holding it for 15 half lives, and the record made did not include a recording of the activity of the waste. In addition, on December 9, 1988 and February 20, 1989, the licensee disposed of residual technetium-99m products, and the record did not include the activity of the waste.

- D. 10 CFR 35.59(b)(2) requires, in part, that any sealed source be tested for leakage at intervals not to exceed six months.

Contrary to the above, the licensee had not leak tested its nominal 197 microcurie cesium-137 sealed reference source or its nominal 263 microcurie barium-133 sealed reference source from March 19, 1987 through June 27, 1989.

- E. 10 CFR 35.59(g) requires licensees in possession of a sealed source or brachytherapy source to conduct quarterly physical inventories of all such sources.

Contrary to the above, from May 27, 1987 to June 28, 1989, the licensee has not inventoried its nominal 197 microcurie cesium-137 or its nominal 263 microcurie barium-133 sealed reference sources at quarterly intervals. Rather, these sealed reference sources were inventoried on May 27, 1987; November 23, 1987; February 22, 1988; and August 9, 1988.

- F. 10 CFR 35.33(d) requires a licensee to retain a record of each misadministration for ten years. The record must contain the names of

all individuals involved in the event, the patient's social security number or identification number if one has been assigned, a brief description of the event, and any action taken to prevent recurrence.

Contrary to the above, as of June 28, 1989, the licensee had not maintained a record of a diagnostic misadministration which occurred on July 20, 1988.

Collectively, these violations have been classified as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - \$4,375 (assessed equally among the violations).

Pursuant to the provisions of 10 CFR 2.201, St. Joseph's Hospital (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps that have been taken and the results achieved; (4) the corrective steps that will be taken to avoid further violations; and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty.

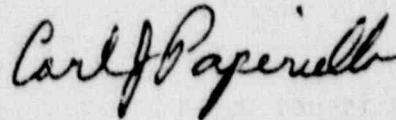
In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and

paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provision of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois 60137.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 22nd day of August 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

**JUL 21 1989**

Docket No. 30-17243  
License No. 42-01485-04  
FA No. 89-93

Texas Nuclear Corporation  
ATTN: John Nelson, President  
P.O. Box 9267  
Austin, Texas 78765-9990

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF \$2,500 CIVIL PENALTY  
(NRC INSPECTION REPORT NO. 30-17243/89-01)

This is in reference to the Nuclear Regulatory Commission's review of an incident involving a Texas Nuclear Corporation (TN) employee who was dispatched to Pennsylvania in September 1988 to retrieve three sealed radioactive sources from a spinning pipe gauge. This incident, which resulted in TN reporting a possible radiation overexposure to the state of Texas on December 15, 1988, involved several apparent violations of NRC requirements which were documented in an inspection report mailed to TN on May 9, 1989.

The violations of NRC requirements that occurred during and after the September 1 incident are stated in the enclosed Notice of Violation (Notice) and involve: failure to notify health physics personnel in order to perform a pre-job assessment in accordance with TN's procedures; inadequate surveys to determine the potential for radiation exposure; failure to post and restrict access to a high radiation area; failure to utilize personnel radiation monitoring devices; failure to perform a timely and adequate dose evaluation after the fact; and failure to notify the NRC of a potential radiation overexposure.

The September 1 incident was not brought to the NRC's attention until the Texas Bureau of Radiation Control, in conducting an inspection following receipt of the December 15 report, realized that it had occurred in NRC jurisdiction. NRC's review of this matter included a January 26, 1989, inspection at Spang & Company in East Butler, Pennsylvania, a February 6 inspection at TN's Austin, Texas offices, a February 17 interview of the TN employee involved in the incident, a March 13-16 review of dose estimates and other records submitted by TN in response to a February 15 Confirmation of Action Letter, and a May 22 enforcement conference with you and other TN officials in NRC Region IV's offices.

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

As we stated during the May 22 enforcement conference, NRC's concerns about this matter stem from the fact that a TN employee, by virtue of conducting a task for which he was not specifically trained and was not qualified, created a high potential for a significant radiation exposure to himself and to an employee of the contracting company (Spang & Company) who was assisting him. While TN's subsequent dose estimates establish that an overexposure did not occur, this matter remains significant in several respects from the NRC's perspective.

First and foremost, we are concerned that the procedures that TN had in place at the time governing work of this nature did not prevent this individual from conducting a task that involved handling unshielded sealed sources, a task for which the individual was not adequately prepared, and involving in this task an employee of the contracting company (Spang & Company). We are also concerned that this occurred despite the TN employee having telephoned his supervisor to discuss the nature of the work to which he had been assigned. Although we recognize that the TN employee had received training, it was not adequate for the task he was required to perform. This raises questions about the awareness of, and sensitivity of, supervision to radiation safety matters among TN personnel and is indicative of a significant weakness in the management oversight of your Radiation Safety Program.

In addition, we are concerned that TN's initial evaluation of the exposure of its own employee was delayed and was not entirely adequate in that no effort had been made to evaluate exposure to the hands of the individual involved, and that no assessment of the exposure to the Spang & Company employee had been performed. TN blames the delay and the failure to perform an exposure evaluation for the Spang & Company employee on TN's having received a late and incomplete report on the incident from the involved employee. The NRC places the burden of responsibility in these matters on its licensees, and believes that appropriate debriefings between the involved individual and his supervisor should have led to an understanding of the seriousness of the problem.

Finally, we are concerned that this event may be symptomatic of a more pervasive weakness in TN's conduct of its Radiation Safety Program. In our view, TN's corrective actions prior to NRC's involvement in this matter were incomplete and were not effective in determining the root cause of this incident in order to protect against a recurrence. We acknowledge TN's letter dated May 26, 1989, following the enforcement conference, and consider the actions outlined in that letter responsive to our concerns. The NRC expects that the enhancements TN made to its procedures and other steps taken will result in TN employees and managers placing greater importance on the radiation hazards associated with the tasks to which the employees are assigned.

To emphasize the importance of fully assessing potential radiation hazards prior to work beginning, and of promptly evaluating radiation safety problems and initiating corrective actions to prevent recurrence, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and



Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Two Thousand Five Hundred Dollars (\$2,500) for the violations described in the enclosed Notice.

Four violations, all involving the September 1 incident in which a significant potential for an overexposure existed, are being considered collectively because they are all associated with TN's failure to ensure that this job was performed by a qualified individual and with the proper attention to radiation safety. These violations are considered to be a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Federal Register 40019 (October 13, 1988) (Enforcement Policy), and are cause for the civil penalty that is being proposed. The remaining violations have been classified at Severity Level IV and are not being assessed a civil penalty.

The base value of a civil penalty for a Severity Level III problem is \$5,000. The penalty adjustment factors in the Enforcement Policy were considered and the base value has been decreased by a total of 50 percent. In this case, TN's good regulatory performance and long history of compliance, which under our policy warrants full mitigation of the penalty, was partially offset by the NRC's conclusions that TN's corrective actions following this incident were neither prompt nor adequate prior to the involvement of regulatory agencies.

Based on the information you provided during and following the enforcement conference, we are withdrawing the Notice of Deviation issued with the inspection report and have determined that no transportation violations occurred.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. In addition, you should describe the actions taken or planned to adequately assess and control radiation hazards before, during, and after completion of the tasks to which employees are assigned and to ensure that members of the general public, such as employees of the companies that you service, are not involved in licensed activities or exposed to radiation as a result of them. The NRC will review your response to this Notice, including your proposed corrective actions, and the results of future inspections to determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.



The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



Robert D. Martin  
Regional Administrator

Enclosure:  
Notice of Violation and  
Proposed Imposition  
of Civil Penalty

cc:  
Texas Radiation Control Program Director  
NRC Public Document Room

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Texas Nuclear Corporation (TN)  
Austin, Texas

Docket: 30-17243  
License: 42-01485-04  
EA: 89-93

During an NRC inspection conducted on January 26, February 6 and 17, and a review of correspondence and other materials through March 16, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Federal Register 40019, (October 13, 1988), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

1. Violations Assessed a Civil Penalty

- A. License Condition 14 requires, in part, that the licensee shall conduct its program in accordance with statements, representations, and procedures contained in the application dated October 15, 1985, and letter dated November 6, 1985.

Item 2(A)(5)(a), Appendix I of the application dated October 15, 1985, states that it is the responsibility of the Radiological Health and Safety Committee (RHSC) to establish procedures and rules governing the handling and use of radioactive materials. Section 5.B. of Appendix I describes the procedures to be followed when using radioactive material in special form and large quantity off-site. These procedures state, in part, that "An application for isotope usage off-site, HP-RP-002, must be completed and submitted to Health Physics. Health Physics will determine whether the planned usage necessitates submission to the RHSC before approval is given."

Contrary to the above, on September 1, 1988, a TN field service technician dismantled and removed one 10-curie and two 2.5-curie cesium-137 unshielded sealed sources from a spinning pipe gauge at Spang & Company in East Butler, Pennsylvania (which constitutes off-site use of radioactive material in special form and large quantity), and an application for off-site usage was not submitted to TN's Health Physics organization. Thus, TN's Health Physics organization did not determine whether the planned usage necessitated submission to the RHSC before approval was given.

- B. 10 CFR 20.202(a)(3) requires that each licensee shall supply and require the use of personnel monitoring equipment by each individual who enters a high radiation area.

License Condition 14 requires, in part, that the licensee shall conduct its program in accordance with statements, representations, and procedures contained in the application dated October 15, 1985, and letter dated November 6, 1985.

Section 5.B. of Appendix I of the application dated October 15, 1985 describes the procedures to be followed when using radioactive material in special form and large quantity. These procedures state, in part, that the equipment necessary will include the film badge and other dosimeters deemed appropriate.

Contrary to the above, on September 1, 1988, a TN field service technician did not utilize a film badge or other personnel monitoring equipment while working in a high radiation area during activities authorized under the TN license involving the removal of one 10 curie and two 2.5 curie cesium-137 unshielded sealed sources (which constitutes use of radioactive material in special form and large quantity) at an off-site location; and the TN service technician did not supply a film badge or other personnel monitoring equipment, or require the use of such equipment, for an employee of the contracting company (Spang & Company) who assisted in performing this work.

- C. 10 CFR 20.203(c)(1) requires that the licensee post each high radiation area with a sign bearing the radiation caution symbol and words CAUTION HIGH RADIATION AREA.

10 CFR 20.202(b)(3) defines a "high radiation area" as any area accessible to personnel in which there exists radiation originating in whole or in part within licensed material at such levels that a major portion of the body could receive, in any 1 hour, a dose in excess of 100 millirem.

Contrary to the above, on September 1, 1988, a TN field service technician created a high radiation area at Spang & Company during the conduct of activities authorized under the TN license and did not post this area as required in 10 CFR 20.203(c)(1).

- D. 10 CFR 20.201(b) requires that each licensee make or cause to be made such surveys as: (1) may be necessary for the licensee to comply with the regulations in Part 20, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation.

Contrary to the above, on September 1, 1988, during the conduct of activities authorized under the TN license, a TN field service technician failed to conduct a survey that was adequate to evaluate the extent of the radiation hazards incident to the presence of



radioactive materials at Spang & Company. The survey was inadequate in that the survey meter reading went off-scale and therefore did not establish the radiation levels in the high radiation area in which work was subsequently conducted.

- E. 10 CFR 19.12 requires, in part, that all individuals working in a restricted area be instructed in the health protection problems associated with exposure to radiation, in precautions or procedures to minimize exposure, and in the applicable provisions of the Commission's regulations and licenses; and that the extent of these instructions be commensurate with the potential health protection problems in the restricted area.

Contrary to the above, on September 1, 1988, a TN field service technician involved an individual (employee of Spang & Company) in the conduct of activities authorized under the TN license taking place in a high radiation area (restricted area), and that individual was not instructed as required by 10 CFR 19.12.

These violations have been evaluated in the aggregate as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - \$2,500 (assessed equally among the 5 violations).

## II. Violations Not Assessed a Civil Penalty

- A. 10 CFR 20.201(b) requires that each licensee make or cause to be made such surveys as: (1) may be necessary for the licensee to comply with the regulations in Part 20 and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation.

10 CFR 20.101(a) limits permissible exposure of the hands and forearms to 18.75 rems per calendar quarter and permissible exposure of the whole body to 1.25 rems per calendar quarter.

Contrary to the above, TN did not, prior to NRC's request of February 15, 1989, perform an evaluation to determine the radiation dose to the hands of the TN field service technician and to the hands and whole body of a second individual (employee of Spang & Company), both of whom wore no personnel monitoring devices while working in a high radiation area on September 1, 1988. Thus, surveys were not conducted to determine compliance with 10 CFR 20.101(a) and 10 CFR 20.101(b).

This is a Severity Level IV violation (Supplement IV)

- B. 10 CFR 20.405(a)(1) requires, in part, that each licensee shall make a report to NRC, within 30 days of the occurrence, of each exposure of an individual to radiation in excess of the applicable limits in 10 CFR Part 20.101. 10 CFR 20.101(a) limits the whole body exposure to 1.25 rems per calendar quarter.

Contrary to the above, TN failed to report to NRC, within 30 days of the September 1, 1988 occurrence, an estimated radiation exposure to an individual in excess of the applicable limits of 10 CFR 20.101.

This is a Severity Level IV violation (Supplement IV).

Pursuant to the provisions of 10 CFR 2.201, Texas Nuclear Corporation (licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violations, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part by written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.


In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the

licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless comprised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Robert D. Martin  
Regional Administrator

Dated at Arlington, Texas  
this 27<sup>th</sup> day of July 1989





UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

AUG 23 1989

Docket No. 30-12750  
License No. 35-03176-04MD  
EA 89-128

The University of Oklahoma Health  
Sciences Center  
ATTN: Clayton Rich, M.D.  
Provost Marshall  
Post Office Box 26901  
Oklahoma City, Oklahoma 73190

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY - \$7,500  
(NRC INSPECTION REPORT NO. 89-02)

This is in reference to the NRC inspection conducted on May 2, 1989, at the University of Oklahoma's (University) College of Pharmacy, at the Health Sciences Center in Oklahoma City, Oklahoma, and to our discussion of the results of this inspection with you and other University representatives at an enforcement conference in our Arlington, Texas office on June 26, 1989.

Our principal regulatory concern stemming from this inspection involves the lack of management oversight of your licensed activities to ensure compliance with NRC requirements. This resulted in the University's violation of NRC license conditions regarding the dispensing and distribution of radiopharmaceuticals and the proper utilization and maintenance of the the Nuclear Pharmacy fume hood ventilation system. It also resulted in the labeling of iodine-131 capsules dispensed to other hospitals in the Oklahoma City area to indicate that these capsules were licensed by NRC for distribution when, in fact, your license prohibits such distribution. These matters are documented in the inspection report issued on June 13, 1989, and are described in more detail below.

License Conditions 7.B, 7.C, 9.B, 9.C, and 13.A. permit the University to dispense and distribute only prepared radiopharmaceuticals and only those that are the subject of a Food and Drug Administration (FDA) approved "New Drug Application" (NDA) or for which FDA has accepted a "Notice of Claimed

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

AUG 23 1989

Investigational Exemption for a New Drug" (IND). Contrary to these requirements, the University distributed iodine-131 capsules which the University made from radioiodine that had not been subjected to FDA evaluation and approval. This practice was conducted from January 1988 until the date of the NRC's inspection, and involved the preparation and distribution of approximately 24 capsules per week.

Even if, as the Director of the Nuclear Pharmacy indicated during the enforcement conference, this practice is considered acceptable where non-radioactive drugs are involved, it is a clear violation of License Condition 13.A. and should not have occurred. A licensee must abide by each condition of its license unless it obtains relief via the license amendment process. Individuals responsible for licensed activities, such as the Director of the Nuclear Pharmacy, must be familiar with the license conditions and follow them. In addition, to label these capsules, however inadvertently, as "licensed by the Nuclear Regulatory Commission for distribution . . ." is unacceptable. NRC expects greater attention to detail of licensees who distribute byproduct material for human use.

In our view, these violations stem from the same root cause; specifically, management failed to maintain adequate oversight of licensed activities to ensure compliance with NRC requirements. Therefore, these violations are being considered in the aggregate as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, (1989) (Enforcement Policy). As we explained to you during the enforcement conference, the NRC's Enforcement Policy states that civil penalties are considered for violations that are classified at Severity Level III and above.

To emphasize the importance of maintaining strict compliance with NRC license conditions and conducting only those activities that are authorized by the license, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Seven Thousand Five Hundred Dollars (\$7,500). The base civil penalty for a Severity Level III violation is \$5,000. Escalation of the base civil penalty by 50% is considered appropriate here because the NRC identified these violations and they should have been identified sooner by the University's own compliance audit programs.

The remaining escalation and mitigation factors in the Enforcement Policy were considered and no further adjustment is deemed appropriate. Regarding corrective action, immediate corrective action was taken only after the University reluctantly agreed that preparing and distributing these iodine-131

AUG 23 1989

capsules constituted a violation of the NRC license. Regarding past performance, two violations (involving requirements for transporting radiopharmaceuticals) recurred between the December 1984 inspection and the May 1989 inspection.

These violations and their duration clearly demonstrate the need for greater attention to detail and improved management oversight of your licensed activities to ensure compliance with all NRC requirements. As we emphasized in the enforcement conference and in other discussions with you, we look to a teaching facility such as the University of Oklahoma to serve as a role model in terms of attention to requirements and good radiation safety practices. The NRC notes the steps you have taken to emphasize the radiation safety function within the organization and to conduct an independent audit of your licensed programs. Future inspections will determine whether these efforts have brought about the necessary improvements in your management of NRC-authorized activities.

Finally, please note that the inspection report includes a discussion of two additional matters that have not been included in the Notice: (1) an event in which the Nuclear Pharmacy labeled unit dose containers with the wrong radiopharmaceutical name, which resulted in a number of diagnostic misadministrations of byproduct material to humans at medical facilities served by the Nuclear Pharmacy, and (2) failure of the Nuclear Pharmacy to update the wording of the "...licensed for distribution..." statement used on the Nuclear Pharmacy product labels as specified in 10 CFR 32.72(a)(4)(i). Under separate cover, you will receive a corrected copy of Amendment No. 03 to License No. 35-03176-04MD. This corrected copy will add the commitments in your letter and attachments dated October 19, 1982, to License Condition 18. Were it not for our administrative error in dropping the October 19, 1982 letter from Condition 18 of Amendment No. 03 of your license, these matters would have been considered violations. After you receive the corrected copy of Amendment No. 03, any future deviations from the commitments in that letter or its attachments will be considered to be violations unless they are authorized by subsequent amendment.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. In addition, you should address actions to ensure that radiopharmaceuticals distributed by the Nuclear Pharmacy are labeled correctly, particularly with respect to the radiopharmaceutical name and the licensing statement specified in 10 CFR 32.74(a)(4). The NRC will review your response to this Notice, including your proposed corrective actions, and the results of future inspections to determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.



The University of Oklahoma  
Health Sciences Center

-4-

AUG 23 1989

In accordance with Section 2.79G of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room. The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,



Robert D. Martin  
Regional Administrator

Enclosure: Notice of Violation and  
Proposed Imposition of Civil Penalty

cc:  
Oklahoma Radiation Control Program Director  
NRC Public Document Room

NOTICE OF VIOLATION,  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

The University of Oklahoma  
Sciences Center  
Oklahoma City, Oklahoma

Docket No. 30-12750 Health  
License No. 35-03176-04MD  
EA 89-128

During an NRC inspection conducted on May 2, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. License Conditions 7.B and C. limit the authorized chemical and/or physical form of byproduct material that the licensee may use under the terms of this license to radiopharmaceuticals listed in Groups I and II of Schedule A, Section 35.100 of 10 CFR Part 35. Schedule A limits the physical form of these radiopharmaceuticals to prepared form only.

License Conditions 9.B and 9.C limit the authorized use of byproduct material under the terms of this license to dispensing and distribution of prepared radiopharmaceuticals, and the processing of technetium-99m pertechnetate.

Contrary to the above, from January 1988 until May 2, 1989, the licensee processed (used) liquid iodine-131 labeled, among other things, "Not to be Used as a Drug" (not in prepared radiopharmaceutical form) to make iodine-131 capsules for distribution to client medical facilities for human use.

- B. License Condition 13.A requires, with exceptions not applicable here, that radiopharmaceuticals dispensed and/or distributed for human use be repackaged from prepared radiopharmaceuticals that are the subject of an FDA-approved "New Drug Application" (NDA) or for which FDA has accepted a "Notice of Claimed Investigational Exemption for a New Drug" (IND).

Contrary to the above, from January 1988 until May 2, 1989, the licensee distributed iodine-131 capsules for human use that were not the subject of an IND or NDA.

- C. License Condition 18 requires, in part, that the licensee shall possess and use licensed material in accordance with statements, representations, and procedures contained in the licensee's letter and attachments dated June 20, 1983.

The licensee's letter and attachments dated June 20, 1983 specify that fume hoods in the nuclear pharmacy will: (1) have air flow face velocities of 100 or 150 FPM, (2) have positive stops at the sash heights specified in the Fume Hood Schedule with a warning label attached that reads "WARNING, HOOD OPERATION IS UNSAFE IF RAISED BEYOND THIS POINT", and (3) exhaust through charcoal filters located above each hood.

Contrary to the above, on May 2, 1989, the NRC inspectors observed the licensee's representative test the face velocity of each fume hood and found that: (1) three fume hoods in the nuclear pharmacy had less than the required face velocity of 100 FPM, (2) one hood sash did not bear the required "WARNING. . ." label to indicate the safe operation level, and (3) the exhaust paths of the three hoods did not contain the required charcoal filters. One of these hoods had been used to store and process volatile liquid iodine-131.

These violations have been categorized, in the aggregate, as a Severity Level III problem. (Supplement VI)

Cumulative Civil Penalty - \$7,500 (assessed equally among the 3 violations).

Pursuant to the provisions of 10 CFR 2.201, The University of Oklahoma is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown.

Within the same time as provided for the response required above under 10 CFR 2.201, the licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in



AUG 23 1989

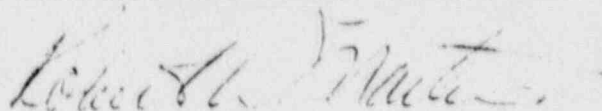
the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation(s) listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section V.B of 10 CFR Part 2, Appendix C should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

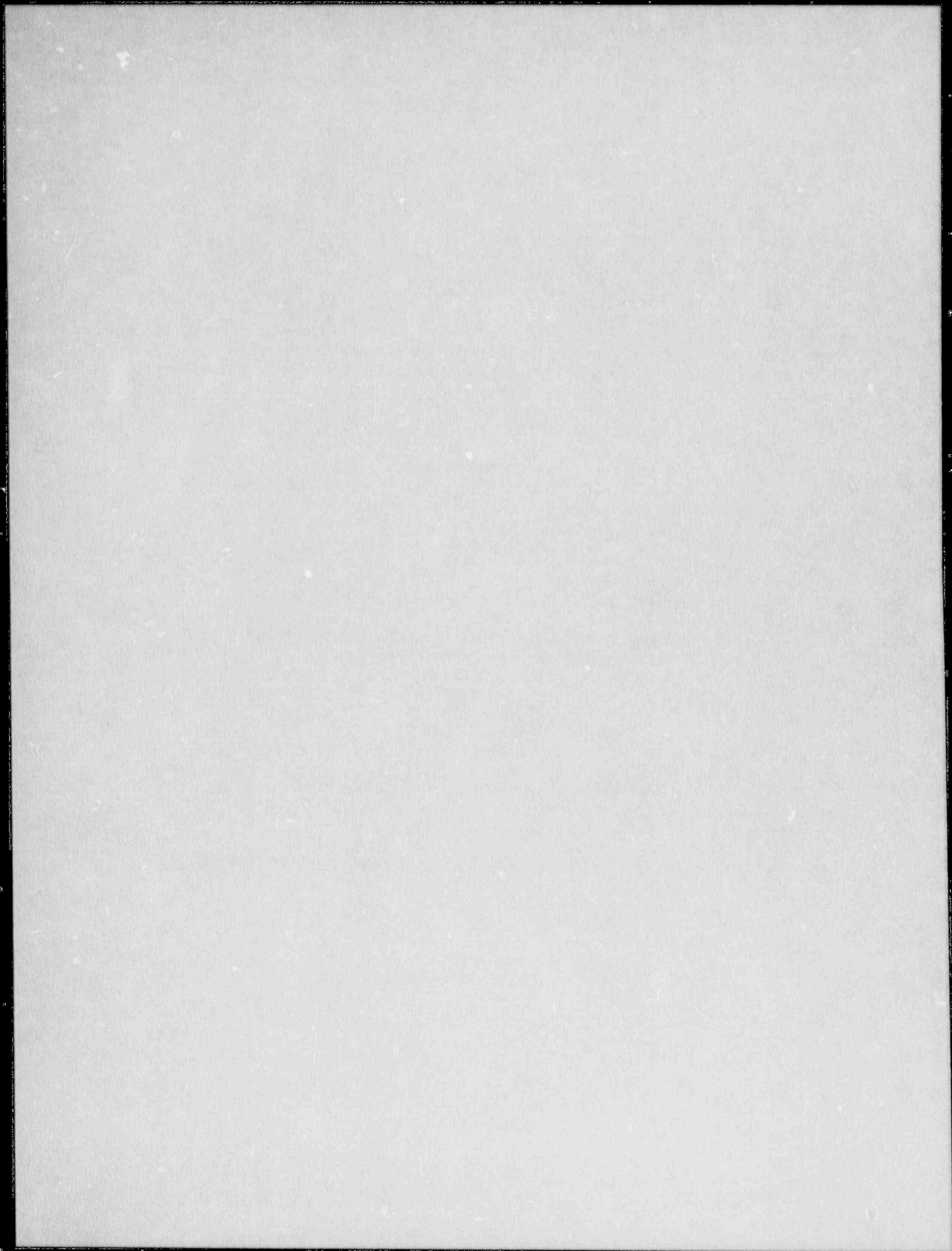
The responses noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert D. Martin  
Regional Administrator

Dated at Arlington, Texas,  
this 23<sup>rd</sup> day of August 1989.



II.B. MATERIAL LICENSEES, SEVERITY LEVEL III VIOLATION,  
NO CIVIL PENALTY





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406  
August 3, 1989

Docket No. 030-01247  
License No. 06-01060-01  
EA 89-137

Bridgeport Hospital  
ATTN: Mr. Christopher Cannon  
Vice President  
267 Grant Street  
Bridgeport, Connecticut 06602

Gentlemen:

Subject: NOTICE OF VIOLATION  
(NRC Inspection No. 89-001)

This letter refers to the NRC inspection conducted between March 29-30, 1989 at your facility in Bridgeport, Connecticut of activities authorized by NRC License No. 06-01060-01. The inspection report was sent to you on July 6, 1989. During the inspection, several violations of NRC requirements were identified. On July 14, 1989, an enforcement conference was conducted with you and members of your staff to discuss the violations, their causes, and your corrective actions.

The violations, which are described in the enclosed Notice of Violation, include, (1) failure to notify the NRC of the appointment of a new Radiation Safety Officer; (2) failure to secure the Hot Laboratory when not in use; (3) failure to perform or maintain records of required package receipt radiation level surveys and contamination wipe surveys; (4) failure to perform or maintain records of daily dose calibrator constancy checks; (5) failure to record the results of dose calibrator linearity tests; (6) failure to perform or maintain records of daily area radiation surveys and weekly contamination wipe tests within the Nuclear Medicine department; and (7) failure to properly store radioactive solid waste for a sufficient time prior to disposal.

The NRC recognizes that the prior enforcement history at your facility has been good, as evidenced by the fact that only one minor violation was identified at your facility during the three previous inspections conducted in 1981, 1983 and 1986. However, subsequent to the last inspection, a new Radiation Safety Officer (RSO) was appointed, and since that time, management has not been effective in maintaining the prior good performance, as evidenced by the number of violations identified during this recent inspection.

The violations are of particular concern to the NRC not only because of the large number of violations but also because certain of the violations involve multiple examples. Specifically, there were repeated failures by your staff to perform receipt radiation level and wipe surveys of incoming packages containing radioactive material, as well as numerous failures to perform daily area surveys and weekly contamination surveys in the Nuclear Medicine department. Further, the NRC is also concerned that your system of records, upon which the NRC relies in part to ascertain your compliance with regulatory

requirements, were either missing or poorly maintained. For example, although no diagnostic misadministrations actually occurred, your prescribed dosage records recorded on the dose calibrator printer were incorrect because the technician did not enter the new prescribed dose for each assay. As a result, the NRC inspector initially believed that diagnostic misadministrations had occurred. The NRC notes that since this inspection, you have committed to maintain appropriate records of each radiopharmaceutical dosage that contain more than 10 microcuries of a radionuclide before use. In addition, further training of the nuclear medicine technologists is appropriate, in that, they were not aware of the NRC's definition of a misadministration as stated in 10 CFR Part 35.2.

These violations, if considered individually, would normally be classified at Severity Level IV or V. However, the violations collectively indicate a recent lack of management oversight of, and attention to, your radiation safety program and demonstrate the need for both management and the Radiation Safety Officer to aggressively monitor and evaluate licensed activities occurring within the Nuclear Medicine department, and in particular, those licensed activities occurring in the "Hot Lab". If adequate attention and oversight of licensed activities had been provided by management, these violations would not have gone undetected until the NRC inspection. Therefore, in accordance with the guidance set forth in Section C.12 of Supplement IV of the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), these violations have been classified in the aggregate at Severity Level III to focus on our underlying concern, namely, a lack of management attention to licensed activities.

Although a civil penalty is normally considered for a Severity Level III violation, I have decided, after consultation with the Director of Enforcement and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, not to issue a civil penalty in this case because: (1) although the violations were identified by the NRC and therefore, provide a basis for 50% escalation of the base civil penalty, this was offset by your prompt and extensive corrective actions (which included establishing formal tracking procedures, as well as a system of audits and assignment of responsibility and accountability to ensure regulatory requirements are adhered to) which provide a basis for 50% mitigation of the penalty; and (2) your past performance, as evidenced by the occurrence of only one minor violation during the last three inspections, is considered good and therefore provides a basis for 100% mitigation of the base civil penalty. Therefore, on balance 100% mitigation is appropriate. The other escalation/mitigation factors were considered and no further adjustment was considered appropriate.

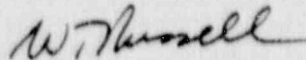
You are required to respond to this letter and the enclosed Notice, and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. Furthermore, you should describe the actions taken or planned to improve the oversight of the program by the Radiation Safety Officer. Further, you should confirm your

commitment, made at the enforcement conference, to maintain appropriate records of each radiopharmaceutical dosage that contains more than 10 microcuries of a radionuclide before use. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further action is needed to ensure compliance with regulatory requirements. Furthermore, we emphasize that a license to use byproduct material is a privilege granted by the NRC, and any recurrent violation of the terms of the license may result in more significant enforcement action, such as a civil penalty, or modification, suspension or revocation of the license.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation

cc w/encl:  
Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
State of Connecticut



NOTICE OF VIOLATION

Bridgeport Hospital  
Bridgeport, Connecticut

Docket No. 030-01247  
License No. 06-01060-01  
EA 89-137

During an NRC inspection conducted between March 29-30, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy), the particular violations are set forth below:

A. Condition 17 of License No. 06-01060-01 requires that licensed material be possessed and used in accordance with statements, representations and procedures contained in an application dated May 21, 1980 and letters dated December 8, 1980; March 24, 1981; February 15, 1982; April 26, 1983; March 28, 1984; May 20, 1985; June 25, 1985; January 9, 1986; and February 9, 1989.

1. Item 11 of the letter dated May 20, 1985 states that the door to the "Hot Lab" will be kept closed and locked when the room is not in use.

Contrary to the above, on March 29 and 30, 1989, the "Hot Lab," which contained radiopharmaceuticals and radioactive waste, was not closed and locked when the room was not in use.

2. Item 14 of the letter dated March 24, 1981 requires that "Instructions for Opening Packages Containing Radioactive Material" be followed.

a. Paragraphs 4 and 5 of the "Instructions" require that radiation level surveys be performed of any package containing radioactive material.

Contrary to the above, on March 29, 1989, radiation level surveys were not performed for two packages containing radioactive material received from a radiopharmacy. In addition, radiation level surveys were not performed on twelve other days between January 1989 and March 1989 when packages were received, and only one survey was performed on each of a number of other days during this same period, even though two or more packages containing radioactive material were received on those days.

b. Paragraph 8 of the letter requires that wipe surveys of the external surface of the final source container be performed.

Contrary to the above, wipe surveys of the external surface of the final source container were not performed for packages containing radioactive material received between July 17 through December 9, 1988 and two packages received on March 25, 1989.

- c. Paragraphs 1, 4, 5 and 8 require that surveys of incoming packages be recorded, and that records include the package identification, the surface and 3-foot radiation levels, and wipe and background contamination survey results.

Contrary to the above, survey records from March 1988 through December 1988 did not contain all the required information in that signatures, purchase order numbers, or other package identification and/or contamination survey results were missing.

3. Item No. 10 of the application dated May 21, 1980 requires that dose calibrators be calibrated in accordance with procedures contained in Appendix D, Section 2, Regulatory Guide 10.8, January, 1979.

- a. Paragraphs C. and H. of Appendix D, Section 2 require that the dose calibrator be checked for constancy with a dedicated check source at the beginning of each day of use.

Contrary to the above, on March 13 and 15, 1989, and January 19 and 20, 1989, a dose calibrator was used to measure patient doses of radiopharmaceuticals, but was not checked for constancy at the beginning of the day.

- b. Paragraphs H.4, H.5, and H.6 of Appendix D, Section 2 require that results of dose calibrator constancy tests be recorded.

Contrary to the above, the results of dose calibrator constancy checks were not recorded for the following days: February 17 and 19, 1988; January 19 and 20, 1989; and March 13 and 15, 1989. Additionally, the results of dose calibrator constancy tests were not recorded during the periods of February 1 through 20, 1989; February 25 through March 5, 1989; and March 17 through 26, 1989.

- c. Paragraph E.4 of Appendix D, Section 2 requires that results of the dose calibrator quarterly linearity test be plotted.

Contrary to the above, results of the quarterly linearity tests were not plotted for the first and third quarters in 1988.

4. Item 17 of the application dated May 21, 1980 requires that "Radiation Survey Procedures" be followed.

- a. Paragraph 1 requires areas within the Nuclear Medicine Department be surveyed daily with a GM survey meter.

Contrary to the above, on February 9, 1989, and on six days between February 1 and August 1, 1988, daily surveys were not performed of the "Hot Lab", which is an area within the Nuclear Medicine Department.

- b. Paragraph 2 requires that wipe tests be performed at the end of each week.

Contrary to the above, weekly wipe tests were not performed during the period of July 18 through December 9, 1987, and for the period of April 19 through May 22, 1988.

- c. Paragraph 3 states that a permanent record will be kept of all radiation survey results.

Contrary to the above, daily radiation survey records were not kept for the following periods in 1989: January 1-8; January 28-February 6; February 17-February 27 and March 12-19. Additionally, survey records for approximately six one week or greater periods were not kept for various periods in 1988.

5. The letter dated January 9, 1986 stated that the Radiation Safety Officer (RSO) for this license is Dr. John A. Creatura.

Contrary to the above, as of March 29, 1989, the NRC had not been notified that Dr. John Creatura had discontinued performance of RSO duties in 1986, and that these duties were assigned currently to David S. Wishko, Ph.D.

6. The letter dated February 15, 1982 states that when the Radiochemistry Laboratory uses quantities of radioactive material authorized by the specific license, the terms of the hospital's material license will be followed.

Contrary to the above, as of March 30, 1989, the Radiochemistry Laboratory used quantities of radioactive material authorized by the specific license, but did not follow the material license procedures in that daily radiation level surveys were not performed and solid waste was not stored for ten half-lives prior to its disposal with the normal trash.

These violations have been categorized in the aggregate as a Severity Level III problem. (Supplements IV and VI)

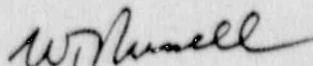
Pursuant to the provisions of 10 CFR 2.201, Bridgeport Hospital (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation:

(1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the



results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 3<sup>rd</sup> day of August 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

September 13, 1989

Docket No. 030-12972  
License No. 34-17306-01  
EA 89-168

Cargill, Incorporated  
ATTN: Mr. Gene Helms  
General Manager  
3201 Needmore Road  
Dayton, OH 45414

Gentlemen:

SUBJECT: NOTICE OF VIOLATION  
NRC INSPECTION REPORT NO. 030-12972/89001(DRSS)

This refers to the inspection conducted on August 1 and 2, 1989, at Cargill, Incorporated of activities authorized by License No. 34-17306-01. The report of this inspection was sent to you on August 24, 1989. During the inspection, violations of NRC requirements were identified. On August 24, 1989, an enforcement conference was conducted with you and other members of your staff and Dr. C. J. Paperiello and other members of the NRC Region III staff. During the conference, we discussed the violations, their causes, and your corrective actions.

The violations that are described in the enclosed Notice of Violation include: (1) removal from service and relocation of a level gauge by unauthorized individuals, (2) failure to secure licensed material stored in an unrestricted area, (3) transferring byproduct material to an entity that was not authorized to receive the material, (4) carrying out the duties of Radiation Safety Officer by an unauthorized individual, and (5) failure, in some cases, to conduct inventories as required. These violations demonstrate the need for improvement in the administration and control of your radiation safety program to ensure the safe performance of licensed activities and adherence to NRC requirements. The NRC is particularly concerned that the Ohmart level gauge containing licensed material that was removed from your process equipment by unauthorized individuals was subsequently transferred offsite by Cargill, Incorporated to an entity that was not authorized to receive this material. It is essential that in the future you take whatever steps are necessary to ensure that licensed material is handled only by authorized individuals and is transferred only in accordance with NRC requirements.

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

September 13, 1989

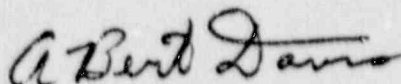
In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989) (Enforcement Policy), the violations described in the enclosed Notice have been classified in the aggregate as a Severity Level III problem. Normally, a civil penalty is considered for a Severity Level III violation or problem. However, after consultation with the Director, Office of Enforcement and the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, I have decided that a civil penalty will not be imposed in this case because of: (1) your identification and prompt reporting of the event, (2) your prompt and comprehensive corrective action to prevent recurrence, and (3) your good past performance. Nonetheless, we emphasize that any similar violations in the future may result in additional enforcement action.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,



A. Bert Davis  
Regional Administrator

Enclosures:

1. Notice of Violation
2. Inspection Report  
No. 030-12972/89001(DRSS)

See Attached Distribution



NOTICE OF VIOLATION

Cargill, Incorporated  
Dayton, OH 45414

Docket No. 030-12972  
License No. 34-17306-01  
EA 89-168

During an inspection conducted on August 1-2, 1989, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1989) the violations are listed below.

- A. License Condition No. 17 requires that relocation or removal from service of devices containing sealed sources be performed by the device manufacturer or by persons specifically licensed by the Commission or an Agreement State to perform such services.

Contrary to the above, on July 26, 1989, a vessel with an attached Ohmart Model SH-100 sourceholder containing an 8.24 millicurie cesium-137 sealed source was removed from its mounted location inside a building by licensee employees who were not specifically authorized by the Commission or an Agreement State to perform such services. Specifically, on July 26, 1989, the licensee relocated the vessel/sourceholder outdoors adjacent to the building and on July 27, 1989 it relocated the vessel/sourceholder to a fenced area on its property. On July 29, 1989, a scrap contractor removed the sourceholder from the vessel and placed it in a dumpster. On July 31, 1989, the licensee again relocated the sourceholder by transferring it to a scrap metal dealer.

- B. 10 CFR 20.207(a) requires that licensed materials stored in an unrestricted area be secured from unauthorized removal from the place of storage. As defined in 10 CFR 20.3(a)(17), an unrestricted area is any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials.

Contrary to the above, between July 26, 1989 and July 31, 1989, an Ohmart Corporation Model SH-100 sourceholder containing an 8.24 millicurie cesium-137 sealed source was not secured from unauthorized removal while stored in unrestricted areas at the licensee's facility.

- C. 10 CFR 30.41(a) requires that no licensee may transfer byproduct material to any persons or entity except as specifically authorized in Section 30.41(b).

Contrary to the above, on July 31, 1989, the licensee transferred an Ohmart Corporation Model SH-100 sourceholder containing an 8.24 millicurie cesium-137 sealed source to Franklin Iron and Metal Corp. in Dayton, Ohio, an entity not authorized to receive this byproduct material under the terms of 10 CFR 30.41(b).

- D. License Condition No. 12 provides that the Radiation Protection Officer for the activities authorized by this license is Gerard J. Curti.

Contrary to the above, in December 1988, Mr. Curti terminated employment with the licensee and from December 1988 through August 2, 1989, licensed activities were supervised by an individual who was not authorized.

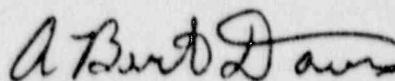
- E. License Condition No. 14 requires that the licensee conduct a physical inventory every six months to account for all sealed sources received and possessed under the license. It requires that records of inventories include, among other things, the quantities and kinds of byproduct material, location of sealed sources, and the date of the inventory.

Contrary to the above, inventories were conducted on June 9, 1988 and July 6, 1989, a period greater than six months. The July 6, 1989, inventory did not include a nominal 10 millicurie cesium-137 sealed source, Serial No. 69741, contained in an Ohmart Model SH-100 sourceholder. In addition, the June 9, 1988 inventory did not include the location of the sealed sources.

Collectively, these violations have been categorized as a Severity Level III problem (Supplements IV and VI).

Pursuant to the provisions of 10 CFR 2.201, Cargill, Incorporated is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator Region III, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois, 60137, within 30 days of the date of the letter transmitting this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) the reason for the violation if admitted; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending the response time. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Bert Davis  
Regional Administrator

Dated at Glen Ellyn, Illinois  
this 13th day of September 1989



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
476 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406  
July 25, 1989

Docket No. 030-01868  
License No. 20-03857-06  
EA 89-133

New England Medical Center Hospitals  
ATTN: E. Cohen  
Associate Director  
171 Harrison Avenue  
Boston, Massachusetts 02111

Gentlemen:

Subject: NOTICE OF VIOLATION

This letter refers to the NRC inspection conducted on June 5, 1989, at New England Medical Center Hospitals, Boston, Massachusetts of activities authorized by NRC License No. 20-03857-06. The report of this inspection was sent to you on June 28, 1989. During the inspection, an NRC inspector reviewed the circumstances associated with a misadministration which occurred at your facility and was identified and reported to the NRC by your staff. On July 10, 1989, an enforcement conference was conducted with you and other members of your staff to discuss the violation, its cause and your corrective action.

The violation, which is described in the enclosed Notice of Violation, involved a Radiology Resident authorizing a whole body scan of a patient even though the Endocrinologist who requested the test intended a thyroid evaluation. As a result, a misadministration occurred in that the patient received a significant unintended dose of between 1200 to 9000 rads to the thyroid. The Endocrinologist had specified the thyroid test in his original order, but mistakenly indicated iodine-131 as the test agent which is only used with whole body scans. Although the Radiology Resident recognized this discrepancy prior to authorizing the scan, he did not seek resolution from appropriate supervision, namely, the Chief of Nuclear Medicine, who was an individual designated by the Radiation Safety Committee to use, or supervise the use of such material. Rather, he sought guidance from the Radiopharmacist, who was not designated by the RSC to use, or supervise the use of, licensed material, and was apparently convinced that the test was appropriate.

This failure to properly resolve an apparent discrepancy represents a lack of adequate supervision of licensed activities and constitutes a violation of NRC requirements. This violation resulted in a significant misadministration at your facility and is classified at Severity Level III in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988) (Enforcement Policy).

Although a civil penalty is normally issued for a Severity Level III violation, I have decided, after consultation with the Director of Enforcement and the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, not to issue a civil penalty in this case because (1) the



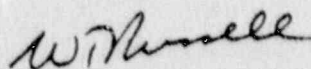
misadministration and related violation were identified by your staff and reported to the NRC, and therefore provide a basis for 50% mitigation of the civil penalty amount; and (2) your corrective actions were prompt and extensive, and therefore provide a basis for an additional 50% mitigation of the penalty. Further, your enforcement history is good and also provides a basis for 100% mitigation of the penalty. The other escalation and mitigation factors were considered and no further adjustment is appropriate.

You are required to respond to this letter and the enclosed Notice, and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to take to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further actions are needed to ensure compliance with regulatory requirements. Furthermore, we emphasize that any recurrence of these violations may result in more significant enforcement action.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL No. 96-511.

Sincerely,



William T. Russell  
Regional Administrator

Enclosure: Notice of Violation

cc w/encl:  
Public Document Room  
Nuclear Safety Information Center (NSIC)  
Commonwealth of Massachusetts

NOTICE OF VIOLATION

New England Medical Center Hospitals  
Boston, Massachusetts

Docket No. 030-01868  
License No. 20-03857-06  
EA 89-133

During an inspection conducted on June 5, 1989, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, 53 Fed. Reg. 40019 (October 13, 1988), the particular violation is set forth below:

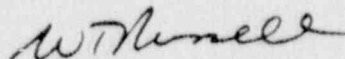
Condition 11.A of License Number 20-03857-06 requires that licensed material shall be used by, or under the supervision of, individuals designated by the licensee's Radiation Safety Committee.

Contrary to the above, on March 14, 1989, licensed material was used by an individual who was neither designated by the licensee's Radiation Safety Committee (RSC), nor was under adequate supervision of an individual designated by the RSC. Specifically, on that date, a Radiology Resident (RR) approved the administration to a patient of a dose of 5 millicuries of iodine-131 for a whole body scan, instead of the intended dose of 1 millicurie of iodine-123 for a thyroid evaluation, and the RR, who was not licensed by the RSC, was not under adequate supervision of an RSC-designated individual. The supervision was inadequate in that the RR, although recognizing a discrepancy in the test, consulted with the Radiopharmacist who was not an RSC-designated individual, rather than consulting with the Chief of Nuclear Medicine who was an RSC-designated individual. The specific discrepancy involved the listing of an iodine-131 whole body scan on one line of the requisition form while the use line was for a thyroid evaluation.

This is a Severity Level III violation. (Supplement VI)

Pursuant to the provisions of 10 CFR 2.201, New England Medical Center Hospitals (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania  
this 25<sup>th</sup> day of July 1989

**BIBLIOGRAPHIC DATA SHEET**

(See instructions on the reverse.)

1. REPORT NUMBER  
(Assigned by NRC. Add Vol., Supp., Rev.,  
and Addendum Numbers, if any.)

NUREG-0940  
Vol. 8, No. 3

2. TITLE AND SUBTITLE

Enforcement Actions: Significant Actions Resolved  
Quarterly Progress Report  
(July - September 1989)

3. DATE REPORT PUBLISHED

MONTH YEAR

December 1989

4. FIN OR GRANT NUMBER

5. AUTHOR(S)

Office of Enforcement

6. TYPE OF REPORT

Technical

7. PERIOD COVERED (Inclusive Dates)

8. PERFORMING ORGANIZATION - NAME AND ADDRESS (If NRC, provide Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address; if contractor, provide name and mailing address.)

Office of Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

9. SPONSORING ORGANIZATION - NAME AND ADDRESS (If NRC, type "Same as above"; if contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.)

Same as above

10. SUPPLEMENTARY NOTES

11. ABSTRACT (200 words or less)

This compilation summarizes significant enforcement actions that have been resolved during one quarterly period (July - September 1989) and includes copies of letters, Notices, and Orders sent by the Nuclear Regulatory Commission to licensees with respect to these enforcement actions. It is anticipated that the information in this publication will be widely disseminated to managers and employees engaged in activities licensed by the NRC, so that actions can be taken to improve safety by avoiding future violations similar to those described in this publication.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

Technical Specifications, Radiographers, Quality Assurance,  
Radiation Safety Program, Safety Evaluation

13. AVAILABILITY STATEMENT

Unlimited

14. SECURITY CLASSIFICATION

(This Page)

Unclassified

(This Report)

Unclassified

15. NUMBER

16.



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NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

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